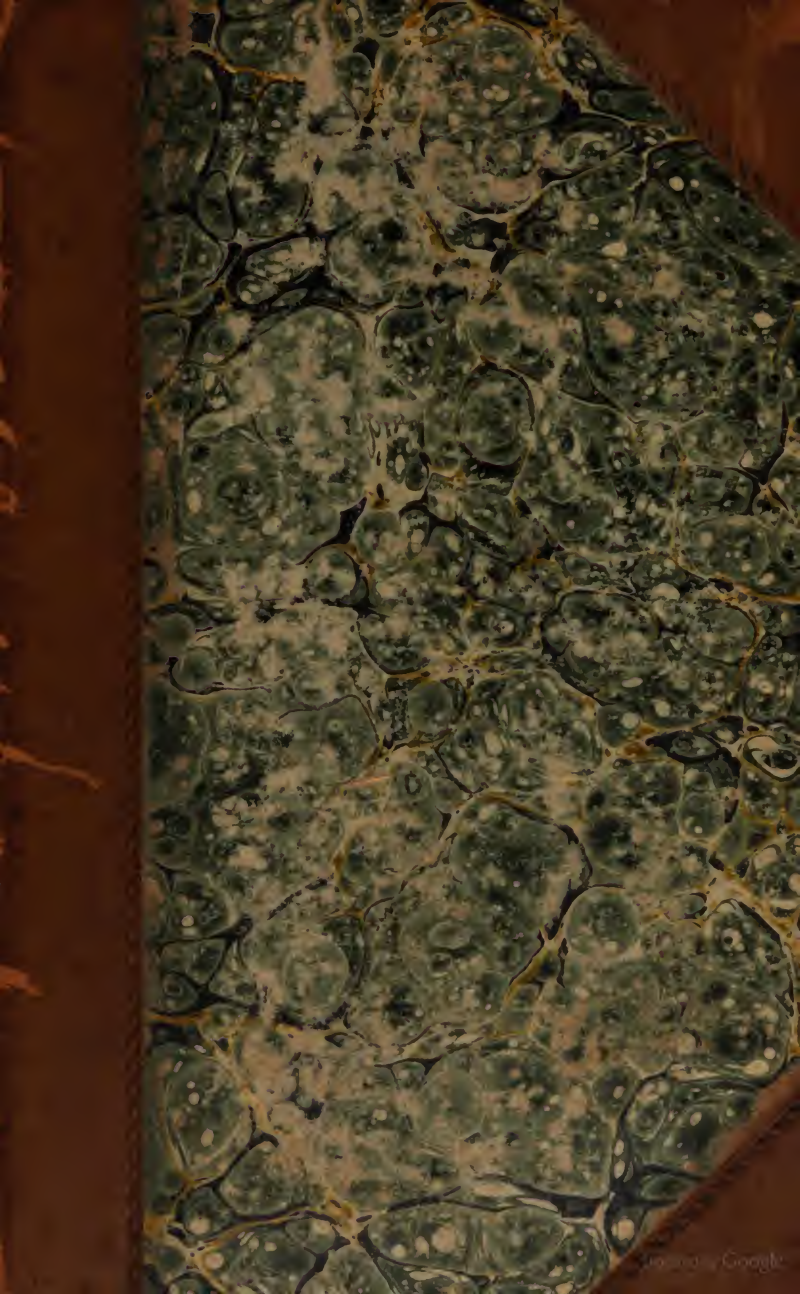
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TREATISE

ON THE

COMPARATIVE GEOGRAPHY

OF

WESTERN ASIA,

ACCOMPANIED WITH AN ATLAS OF MAPS.

BY THE LATE

MAJOR JAMES RENNELL,

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ASIA MINOR.

CHAPTER II.

IÖNIA.

Iönia, next to Greece itself, is, perhaps, the most interesting part of ancient geography. It is true that the Greeks colonized almost the whole extent of the western coast of Asia Minor, at different times; but the Æolian colonies appear to have been on the decline, before the flourishing times of the Iönian. Doris contained only that large peninsula, in the SW. part of Caria, which had *Cnidus* at its extremity. And although the neighbourhood of *Halicarnassus*, and other Greek establishments in that quarter, had, in a manner, made the population of the coasts Grecian; yet the states of Iönia had a firmer bond of union, and when disposed to act in defence of their common interests, had often proved themselves invincible to the possessors of the peninsula of Asia Minor at large.

It has been already stated that Æolis was generally understood to extend from the Troad and

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Adramyttium to Phocæa and the river Hermus; and Iönia from thence to Miletus and the temple of the *Branchidæ*, on the promontory of *Posideum*; both of which, lying to the southward of the Mæander, were, of course, included in Caria. Some extend Iönia to the gulf of *Iassus* (now Assemkalah). It probably varied, at different times; as in the instance of Smyrna, which first belonged to the Æolians, and was afterwards seized on by the Iönians.

Strabo gives (p. 632,) the length of Iönia at 430 stades, along the coast, which is a manifest error, as 800 are given in p. 663, agreeing to the distance on the map generally. For the shortest line that can be drawn from Phocæa, to the temple of the Branchidæ, is 76 G. miles; equal to about 760 *Roman* stades (such, perhaps, as Strabo intended, in this place); and if Iönia be extended to Iassus, 170 more, or 930 in the whole.

The particulars given by Strabo are the following, pages 632 and 663:

From Phocæa to Smyrna . .	200 stades.
Thence to Ephesus . .	320[1]
Magnesia .	120
Tralles . .	140
To the Mæander .	80
Total	860

But this cannot be taken as the dimensions of the country; for the line from Ephesus to Tralles, &c. is *oblique* to the other part, and the distance between

[1] In 632, 320 are given; in 663, 300.

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Ephesus and the Branchidæ is wanting. If Strabo, who, residing at *Nysa*, may be supposed to have gone over this ground, was not aware of the obliquity of the two portions of his line of distance, he must have been greatly wanting in that necessary qualification of a practical geographer, the art of taking *the line of a country*.

The breadth of Iönia is no where given. Nothing could be more irregular, in point of form; it consisting, as it would appear, of small districts, around the different cities and towns; save only the great peninsula of *Erythræ*, &c., and the islands of Samos and Chios.

It is well known that Iönia (or the *Iönian league*) originally consisted of twelve cities of considerable note, with many other towns of lesser note; besides a thirteenth city, Smyrna, afterwards wrested from the Æolians.

The names of the cities, beginning from the north, are Phocæa, Smyrna, Clazomene, Erythræ, Chios, Teos, Lebedos, Colophon, Ephesus, Priene, Samos, Myus, and Miletus. Others of lesser note were Temnos, Leuce, Metropolis, Myonnesus, Latmus.

From the positions of these cities and towns, a pretty just idea of the extent of the territory may be collected. The reader is referred to No. III. of the comparative geography.

The northern limit was Phocæa, (and as we conceive, *beyond* the Hermus, even as it *then* ran, though but a short distance.) From thence, inland, *to* Mount *Sipylus* and Mount *Pagus*, and by the

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southern branch of Mount *Tmolus*, terminating at the *Cayster* river, a few miles above Ephesus; and thence, successively, by the mountains *Pactyas*, *Thorax*, and, crossing the Mæander, into Caria, *Titanus* and *Latmus*; and, if *Iassus* be included, the whole of the mountain *Grius* would belong to Iönia. Throughout this whole extent, the country of Iönia is seldom 20 miles in breadth, and commonly much less, and is merely the exterior border of Lydia.

We shall next proceed to describe the particulars of the geography of this celebrated country. And here the author, conscious that every cape, mountain, river, fountain, or plain in it, has, at some time or other, been the subject either of history or of some poetical allusion, has not ventured to grasp at the whole of so diffuse a subject, but has contented himself with pointing out the most remarkable objects.

Beginning on the north, Phocæa is the first city of Iönia. This place must have varied its site, even during the times of ancient history. The site of *that* Phocæa, which was deserted, through the tyranny of Harpagus, under Darius Hystaspes, is pointed out, at an inlet, some miles to the northward of the gulf of Smyrna; but a *later* Phocæa, where still exists a considerable town, under the name of *New Fogeea*, (as the former site is called the *Old Fogeea*,) lies some miles *within* the Smyrnæan gulf, and at 6 or 7 miles from the other.

That *this* latter was the Phocæa taken by Æmilius Scaurus, in the time of Antiochus, (B.C. 190,)

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appears clearly by the description in Livy, (lib. xxxvii. c. 31.) There were *two* ports, separated by a *narrow* peninsula, (which had a still *narrower* isthmus,) projecting a mile into the sea; agreeing, pointedly, to the description of Mr. Wilson, Master of his Majesty's ship Zealous, who surveyed the gulf of Smyrna, the canal of Scio, &c., in the course of the present war. Moreover, one of these ports is said to front the *south*, which was not possible to have been the case at Old Phocæa, where the coast fronts the NNW.

Between Phocæa and Smyrna is a flat tract, bordered within by the base of Mount Sipylus, and, towards the sea, marshy, and intersected either by the present or ancient channels of the Hermus, which appears to have wandered from the site of *Phocæa* to that of *Temnos*, and forming the *left* side of the gulf of Smyrna, to those who enter it from without.

In this tract stood *Leuce*, an Ionian city, whose site we are enabled to fix, from the information of Mr. Wilson, at nearly midway between Fogeea and the mouth of the Hermus. Mr. Wilson remarks that "the promontory named *Cross Head* was anciently called *Lucca*, and that it looks like an island." Pliny says that, in his time, it was a promontory, but had been an island, (lib. v. 29. [1]) *Temnos* was in this quarter, but its site is unknown. Menimen is too far inland for it.

[1] See Dr. Chandler's Travels for observations on the changes produced by the depositions of the *Hermus*, p. 76, *et seq.*

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Smyrna, at present the principal city of Asia Minor, is situated at the head of a remarkable gulf, which penetrates 15 leagues into the country. At the entrance, and for 8 leagues upwards, it carries a breadth of 9 to 12 miles; from thence it diminishes, and forms, at the extremity, one of the finest ports in the world.

Of the *left*, or north side of the gulf, we have already spoken, as far as the mouth of the Hermus. The flat land continues the whole way to Smyrna.

The right, or southern side of the gulf, is formed by a very remarkable and celebrated peninsula and isthmus; that denominated from *Clazomene*, and sometimes from *Erythræ*. In these times, it is called *Karabournu*, from the name of the cape or promontory, which terminates it to the NW., (and which is, in fact, no more than a translation of the Grecian *Acra Melæna*,) and over which stands a peak, or haycock mountain, the *Mimas* of the ancients, and still known by that name, and even mentioned by Mr. Wilson, in his sailing directions for the gulf of Smyrna [1].

[1] *Mount Mimas* occurs in the Odyssey, (lib. iii.) on occasion of the return of the Greeks, after the taking of Troy.

Nestor informs Telemachus, that when they were departing from Lesbos to Greece, a doubt arose which course to steer; whether along the coast, and under Mount *Mimas*, or to make a direct course, outside the island of *Psyra* (Ipsera). The oracle decided for the latter *. The intention of sailing under *Mimas*

* "In deep deliberation on the length
Of way before us, whether we should steer

The peninsula projects so far into the sea, from the general line of the coast, that it is a remark of Strabo's, that although it be no more than 320 stades by land from Smyrna to Ephesus, yet that by sea it is 2200. (Strabo, p. 632.) Perhaps, this may be somewhat overrated, but not widely so. Again, the same author observes, (p. 644,) that Alexander, by cutting through the isthmus of *Clazomene*, 50 stadia, he would have saved 1000.

This tract, reckoning between Mount *Pagus* on the east, and *Mimas* on the west, is the largest extent of *compact territory* possessed by the Ionians. Hitherto, its form has been ill defined, and the channel between it and *Chios* (Scio) has been drawn too wide. The nearest part of *Chios*, to the promontory of *Argennum* (Cape Blanc), is no more than $3\frac{1}{2}$ British miles distant, as appears by Mr. Wilson's survey and report, and there are two small islands within this space [1].

was probably to secure a port, in the event of bad weather, which they then anticipated. That coast abounds with fine ports. There is one in English Island, just within Mimas, and the strait between Scio and the main land has generally shelter.

[1] It was in some of these islands that Philip of Macedon (son of Demetrius) beheld the sea-fight between his fleet and that of Attalus, (B.C. 202,) within the very strait; and in which battle

Above the craggy *Chios* to the isle
Psyria, that island holding on our left;
Or *under Chios*, by the wind-swept heights
Of Mimas."—COWPER.

Some may ridicule a consultation of this kind, but the author has known a council held at Portsmouth, whether a fleet should sail through the Needles, or attempt to weather Bembridge Point.

The general form of this peninsula and isthmus, *collectively*, may be compared to the letter L, of which the upright part fronts the island of Scio, on the one hand, and the gulf of Smyrna, on the other. The ports of *Erythræ* and *Cyssus* (now Rittree and Chesme) are on the side towards Scio, and a ridge of high mountains occupies the middle part throughout its whole length, and is properly the ridge of Mimas, although at present the name is exclusively applied to the peaked mountain at the extremity; perhaps, for the sake of defining its position more clearly, as a sea mark; for as such it serves, in the navigation of the gulf of Smyrna.

The lower, or *horizontal* part of the L is occupied by the mountain of *Corycus*, on the west, and that of *Corax*, on the east, having between them, at the narrowest part of the isthmus, a very low valley, where the distance across, from the gulf of Smyrna to that of Ephesus, is only 50 stades. It was here that Alexander attempted a canal; the marks of

130 ships were engaged on both sides. See Polybius, lib. xvi. and also Dr. Gillies' History of the World, from Alexander to Augustus.

A second naval battle was fought, nearly in the same place, 11 years afterwards, between Polyxenides, admiral to Antiochus the Great, and the Roman Consul Livius, when the Romans gained a great victory. Livy, lib. xxxvi., c. 43, *et seq.* Previous to the battle, the fleet of Antiochus had been lying in the port of *Cyssus*, (taken for Chisme, where the Turkish fleet was burnt by the Russians, in 1770.) *Cyssus* was said to be a port of *Erythræ*. The grand battle between the Russians and Turks, which preceded the conflagration, was also fought in the strait of Scio.

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which, like those of Xerxes at Mount Athos, are said to be still visible [1].

Clazomene, situated in a small island, was about 5 miles below the place of the intended canal, and about midway between Smyrna and the open sea. The island is very small, with few remains on it, and joined to the main land by a narrow causeway. It is succeeded, on the main land, by the town of Vourlah.

The canal, had it been continued, would have opened into the port or inlet of the city of *Teos* (now Bodroum). But the rocky nature of the soil prevented the execution.

The base of Mount *Corax* occupies generally the space between the head of the gulf of Smyrna and the exterior coast, which is part of the gulf of Ephesus. And all the lower part of the L before mentioned, that is, the southern flank of Mount *Corycus,* helps to form the northern shore of the same gulf.

We shall now speak of the ancient and flourishing city of Smyrna.

Smyrna is situated near the inmost recess of the gulf of the same name; which has been spoken of in page 6. The existing city is the *third* of that name which has been situated on this gulf. It occupies the inferior slope of a low mountain, or hill, the western termination of *Mount Pagus,* together with the flat ground contiguous to it, and bordering on the upper part of the gulf.

The second Smyrna is supposed to have occupied

[1] See Chandler's Travels, p. 86. 98.

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the whole breadth of the same hill, as well as the flat space between it and the sea; since it extended to the port mentioned by Strabo (page 646)[1], the remains of which still exist; as well as the stadium and theatre, high up the hill, and in view from the ships in the road. Chandler therefore is right, when he says that the modern city "*slid*, as it were, down the slope, towards the sea; leaving behind it a naked space, where they now dig for old materials, &c." (page 62.) This second Smyrna is the one built by the Macedonian conquerors; some say, Alexander; others, Antigonus and Lysimachus.

But the original and *Æolian* Smyrna, the birth-place of Homer, stood 2 or 3 miles higher up, at the inmost recess of the gulf; and its situation is well known.

It is proper to be observed, that the historians of Alexander do not speak of his having visited the site of Smyrna, but carry him from *Zeleia* to *Sardis* and Ephesus, and thence into *Caria*. However, as both Pliny and Pausanias speak of his acts at the site of *Smyrna*, and at the isthmus of *Clazomene*, with the motives for those acts; one must conclude that the historians now extant overlooked the circumstance; for it is to be further remarked, that Pliny and Isidore of Charax refer the foundation of *Nicephorium* (Racca) on the Euphrates, to Alexander; although the historians are equally silent respecting his marching that way. On the whole, then, it appears that

[1] The port is now dry, except after heavy rains, and forms a spacious recess within the present town. Chandler, p. 63.

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the ancients had a general belief of the visit of Alexander to Smyrna, and to the peninsula of *Clazomene* and *Erythræ;* although Strabo appears to have thought otherwise, (p. 646.) It is probable that Alexander viewed those places in his way from *Sardis* to *Ephesus.*

Strabo (p. 646) leaves us in no doubt respecting the position of the *Æolic Smyrna.* Pursuing his description of the coasts of Iönia, he says, "Beyond Clazomene and a temple of Apollo, are the gulf and city of Smyrna[1]." And still further on is *another Sinus,* where the *ancient* Smyrna stood; 20 stadia from the new city. That the Lydians having destroyed the old city, the Smyrnæans lived in villages during the space of 400 years, when a new city was built for them by Antigonus and Lysimachus. And the city so built was partly on the site of the present one.

Pausanias (*Achaïcis*, c. v.) says, that Alexander was directed by a vision whilst sleeping on Mount *Pagus,* to build a city in *that place,* for the Smyrnæans; who accordingly settled there, after obtaining a most favourable answer from the oracle of *Claros.* Pausanias is silent respecting their living 400 years dispersed in villages; but it follows, of course, that in the interim, there was no existing city of Smyrna. Nor does he mention either Antigonus or Lysimachus.

Now, Strabo's description agrees to the actual

[1] Hence is to be collected, that Strabo considered the gulf of Smyrna to begin only at the narrow part, 10 or 12 miles below the city. He regarded the outer, and wide part, as the open sea.

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geography. The *second* Sinus is that noble bason situated to the NE. of the present Smyrna; known by the names of *Carnass, Careenage,* and the more vulgar one of *Peg's Hole* [1]. It penetrates 2 miles within the points of Smyrna and Cordilio; and is a mile and a quarter in breadth, with a sufficient depth: and is yet supposed to be nearly half filled up, in point of extent, by the sand and gravel brought down by the torrents from the surrounding mountains of *Corax, Sipylus,* and *Pagus.*

Again, at the distance of 2 miles, or more, from the NE. side of this *Sinus,* and at about 4 miles from the present Smyrna, is a large village named Bournabat, [through which runs a rivulet from the adjacent mountains of *Sipylus,* and falling into the NE. part of the inner *Sinus,* or bason.] The foundations of an extensive city, recognised on the spot for those of ancient Smyrna, are found in the village itself, and in the plain around it: and hence there is no difficulty in fixing the general sites of the *old* and *new* cities; the former, or *Æolic,* being at Bournabat; the latter, or *Macedonian,* on the ground partly occupied by the present Smyrna.

It is the identity of the river *Meles* that forms the difficulty in this case; since there is a distinct river belonging to each of the two sites. We proceed to detail the scanty notices found in the ancients, respecting the *Meles.*

[1] It is not improbable that this name, given perhaps by British sailors, is a corruption of *Pagus,* the modern as well as ancient name of the mountain, whose peak forms the *leading* mark to the upper part of the gulf of Smyrna, according to Mr. Wilson.

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Strabo (p. 646) merely states that it passes close to the walls of Smyrna. Pliny (v. c. 29.) that Smyrna is pleasantly situated on the river *Meles*, whose source is not far distant. And Pausanias, (*Achaïcis*, c. 5.) that at Smyrna (or amongst the Smyrnæans,) there is a beautiful river called the *Meles*, which has at its source a cavern, in which Homer is said to have composed his poems.

These reports refer to the present site; and not to that of the *Æolic* city situated at the *inner Sinus*. And, accordingly, by the concurrent accounts of modern travellers [1], a river, under the name of *Meles*, still exists; passing through the deep valley behind (or within, in respect of the sea-coast,) the city, and emptying itself into the inner Sinus, or Peg's Hole, when its bed is full; but at other times, it is almost entirely expended in watering the contiguous gardens and fields [2]. The source of this stream is said to be in the northern skirts of Mount *Corax*, near the village of Sewdikoi, 6 or 7 miles to the southward of Smyrna; receiving, in its way, several adjunct streams, or rills, from the south-eastward.

The above-mentioned chart of the gulf of Smyrna (from a survey by Mr. Wilson) also conducts the Meles river into the SE. corner of the port called

[1] See Pococke, vol. ii. part ii. p. 39; and Chandler, p. 71. *et seq.*

[2] The stream is clear, and in summer shallow; not covering the *rocky bed* which it occupies, previous to its descent into the lower grounds. But in winter, after heavy rains on the mountains, or the melting of snow, it swells into a torrent, rapid and deep, &c. (Chandler, page 71.)

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Peg's Hole; whilst it describes another stream from the east, which falls into the NE. part of the same bason. This latter is well known as the stream that passes by Bournabat, and through the site of the first Smyrna. It rises within the first ridge of Mount *Sipylus*, 5 or 6 miles to the NW. of Bournabat; and has two grottos in the rocks nearly over its source. Its volume of water is smaller than that called the *Meles*.

An ingenious French gentleman (M. Cousineri) traced the bed of this stream, which in summer is very nearly dried up below, to its source, which he found to be composed of three distinct springs, and near them the grottos above-mentioned. He flattered himself to have found in these, the river *Meles*, and the *grottos* of Homer.

Mr. James Morier, to whom the environs of the *Smyrnas* are perfectly familiar, reports that, *wrought into the wall* of a mosque, in the centre of Bournabat, is a granite column, (from the adjoining mountain of *Sipylus*,) on which is engraven the following inscription:

ΥΜΝΩ ΘΕΟΝ
ΜΕΛΙΤΑ ΠΟΤΑΜΟΝ
ΤΟΝ ΣΩΤΗΡΑΜΟΥ
ΕΚΠΑΝΤΟΣ ΛΙΜΟΥ
ΚΑΙ ΚΑΚΟΥ
ΠΕΠΑΥΜΕΝΟΥ.

Now, although this column is found at present close to the river of Bournabat, it may doubtless be a question, whether it stood there originally. And

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even if so, whether the other river may not have taken its course that way in ancient times; since much *new land* appears to have been formed in this place; and, of course, a great change must have been produced in the original plain adjacent to it.

Both Dr. Chandler and Mr. Morier remark, that much ground appears to have been gained on the side towards Bournabat and the bason. Mr. Morier says, "The ground between Bournabat *scale* (wharf or landing-place) and Bournabat town, is either sand or gravel; no doubt *filled up* by the Meles." And Dr. Chandler, (p. 71.) "Old Smyrna, which is described as near the sea, with the clear stream of the Meles running by it, existed in the second century; and perhaps some vestiges might be discovered, even now, in tracing the river towards the bay; which is *less wide* than it was anciently, and has been removed from the site by a large accession of low land formed of soil washed from the mountains near, or of mud and slime brought down by the torrent."

Here it appears that the Doctor, although residing so near, was not aware that traces of buildings were actually known to exist on a site to which Old Smyrna was referred. It also appears that he concluded, that the same river that ran by the ancient town runs by the modern one. In effect, that by following the course of the river of the present Smyrna, he would be led to the ancient site. This opinion must have been adopted from a view of the place itself; which he believed to have been so far changed as that a great part of the bason had become *dry land:* and in such a case, the river might easily

have been *jostled* out of its course; and instead of falling into the south side of the bason, as at present, might have fallen into the east side, after washing the walls of the ancient Smyrna, in its way: in which case, the granite column might have stood on the banks of the *Meles*, and yet have not been removed to any distance from its former site. If this be admitted, a great part of the difficulty will be removed; and the river of Bournabat, then become an *adjunct* of the *Meles*, might perhaps claim for its grottos the privilege of having received the great father of Grecian poetry. But since the nearest sources of these rivers were not within 5 or 6 miles of ancient Smyrna, and the most distant 9 or 10, it is not easily reconciled, that Homer, if an inhabitant of Smyrna, went so far to study [1]. And it has been remarked, that he has never mentioned either *Smyrna* or the *Meles*.

It may be added, in support of the opinion that the present Meles might have passed by the ancient site, that, as 20 stadia is the distance given between the old and new cities, the former must have extended very far to the southward of Bournabat, in order to have approached within $2\frac{1}{2}$ Roman miles of the Macedonian Smyrna; whose site is clearly pointed out by the port, the stadium, and the theatre.

The reader, however, must determine for himself, in respect of the identity of the rivers. And, in respect of the supposed changes of course, much

[1] It is Pausanias alone, we believe, who speaks of the grottos.

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greater have happened in the cases of the *Cayster*, the *Mæander*, and even of the *Danube* itself.

We now return to Mount *Corax*, and the coast of the Ephesian gulf. If this be reckoned to commence at the islands of *Chios* and *Icaria*, it has a length E. and W. of about 60 miles, by 25 in breadth, having the site of the highly celebrated city of Ephesus at the upper end. Those who sail up this gulf, environed with true classic ground, find themselves, on their advancing towards the head of it, opposite to a most beautiful and magnificent crescent, formed by the main land of Iönia; the view taking in at once the whole scope between the promontory of Mount *Corycus* and that of Mount *Mycale*, an extent of 45 miles. Within this space were contained the cities of *Teos*, *Myconnesus*, *Lebedos*, *Colophon*, *Ephesus*, and others of lesser note; and the station of *Pan Iönium*; with the well-known mountains of *Corycus*, *Corax*, *Gallesus*, *Pactyas*, *Corissus*, and *Mycale*, in the back ground: and in the distance *Mimas*, *Sipylus*, *Tmolus*, *Titanus*, and *Latmus*. But, alas! in this scene none of the works of man remain! all have perished! It is not long since that even the site of Ephesus, and of Miletus, the ornament and the pride of Iönia, were in dispute, from the paucity of remains of those magnificent cities!

From the authority of the existing charts of this coast[1], together with the notices afforded by Dr.

[1] Chiefly that of the late Marquis de Chabert, for the bearings and distances.

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Pococke, Chandler, Mr. W. Hamilton, and Captain Hayes, &c. with the aid of the Theodosian Tables, Strabo, Pliny, &c. the suite of positions of the ancient foundations may be pretty satisfactorily made out.

Beginning with *Teos*, on the north, the first place of note that occurs to the eastward of the strait of Scio (or *Chios)*, and one of the twelve Iönian cities; its marked situation on a projecting point, at the south side of the isthmus of Clazomene, and near the entrance of a very deep inlet, which formed its port, will not allow of its being mistaken [1]. It is now called Bodroum; and Sigagik, at the head of the inlet, answers to *Geræ* [2], the *Geræsticum* of Livy, (xxxvii. c. 27.)

The Theodosian Tables have a road from Smyrna to Ephesus, *circuitously*, through *Teos*, *Lebedos*, &c.; but there are some great errors in the distances. Teos is set down at only 12 MP. from Smyrna, but is known to be 8 hours of travelling, or at least 24 miles. From thence to Ephesus, along the coast, 55 MP. are given, but the actual geography allows of 45 only, and it furnishes the means of correction. For the position of *Colophon*, or rather of *Claros*, (under the modern name of Zille, at the mouth of a small river, taken for the *Halesus*,) is

[1] See Dr. Chandler for *Teos*, &c. p. 97, *et seq.* He found the remains of the city wall, several miles in circuit; and those of the celebrated Temple of Bacchus.

Chandler and Pococke may both be consulted with great satisfaction, in what relates to this quarter.

[2] See Dr. Chandler, page 96. *Geræ* was 30 stadia from *Teos*.

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well made out, and is not more than 10 MP. short of Ephesus, though given at 20 in the Tables. The same interval is given by Strabo at 70 stadia, which agrees nearly enough; so that the remainder of the distance in the Theod. Tables, 85 MP., between Teos and Colophon, agrees well with the actual geography [1].

The first 20 MP. from Teos go to *Lebedos*, of which no trace remains, though one of the twelve cities, but the distance leads to a deep inlet of the coast, within a small island, named Karabash, which may be taken for the ancient *Aspis*, or *Arconnesus* [2]. (Strabo, p. 643.)

Myonnesus lays between Teos and Lebedos. This position so marked, as a lofty steep peninsula, or rather tongue of land, projecting so far out from the line of the coast, cannot be mistaken in the present *Hypsile Boroun*, meaning a high mountain or promontory. It is nearer to the site of Lebedos than to that of Teos [3].

It was between Teos and Myonnesus that a great sea fight happened between the Roman Consul Æmilius and Polyxenides, the admiral of Antiochus, (B.C. 190.) There were 80 ships on each side, and the

[1] Strabo, p. 643, allows 310 stades between *Teos* and *Ephesus*; Teos to Lebedos, 120; thence to Colophon, 120; Ephesus, 70; which, at 8 to a Roman mile, give about 39 miles. Besides the disagreement in the distance, Lebedos at 15 MP. from Teos, would fall on an open coast; but at 20, at a deep inlet.

[2] This island was seen by Chandler; see p. 103: and by Pococke.

[3] Chandler, p. 101.

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Romans had a decided victory. See Livy, lib. xxxvii., c. 27, for the description of Myonnesus, and c. 28, 29, 30, for the battle.

One cannot readily comprehend a part of the description of what passed previous to the action. The fleet of the Romans was moored in the port of *Teos, Geræsticum;* and the admiral of Antiochus lay at the same time at the island of *Macris,* said to be *opposite* to *Myonnesus,* and from whence he, lying so near, could discover the motions of the enemy, in the port of Teos. In the charts, no island appears, save that of *Aspis,* opposite Lebedos, and full 14 British miles from the Roman fleet; moreover, Myonnesus intervening. *Aspis* must therefore be the same with *Macris,* and as it lies close to the main land, they might have sent persons on shore to look out from the heights.

Of *Colophon* no traces appear to remain [1]. It was situated about 2 miles inland, having the towns of *Claros* and *Notium* [2], on the sea coast, before it. *Claros* was the seat of a temple and oracle of Apollo, and very famous. *Notium* appears to have been the *port* of Colophon. A small river, named anciently *Halesus,* ran by Colophon, and thence into the sea, between *Claros* and *Notium.*

Dr. Chandler found many remains at Zille, which is in a situation answering exactly to *Claros.* There he found also the brook, answering to the *Halesus,*

[1] Chandler, p. 107, *et seq.*

[2] Livy, lib. xxxvii. c. 26, says that *Notium* is 2 miles from Colophon.

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famous for its coldness. It descends immediately from Mount *Gallesus* (now Alyman), which impends over the site of Colophon, and therefore cannot be the stream crossed, in a valley, on the road between Smyrna and Ephesus, which some traveller has called the *Halesus*. But it is doubtless the *Calaon* mentioned by Pausanias (Achaicis, chap. iii.); as also the *Ales* of the same author, (chap. v. [1])

Dr. Chandler believed that he had found the cave and divining well at Claros. The only difficulty is, how the water should have been made to flow out of the top of the cave, after being confined to a well within it!

Claros stands at so great a projection of the coast, that from it the plain of *Ephesus*, Aiasaluk, and Scala Nova were distinctly seen.

The island of *Diana*, now called Cortica, somewhat short of Claros, was observed by Dr. Chandler.

Being now arrived at the plain or valley of Ephesus, (for it begins at a very few miles from Colophon,) and consequently at a great break, or separation, in the line of mountains along shore; this being the termination of the *Caystrian* plain, on the sea-coast; it may be proper, in this place, to speak of the mountains in succession, from the gulf of Smyrna to this place, and which we consider as a method better calculated to impress them on the mind of the reader, than if they had been mentioned separately, as they occurred, in tracing the coast.

[1] *Halesus* and *Ales* are probably derived from *Gallesus*; as well as the modern name of *Alyman*.

These mountains extend, in a regular chain, from the gulf of Smyrna, to what was anciently the gulf of the *Mæander*, (though now filled up to a plain,) and are divided into two, not very unequal, parts, by the plain or valley of Ephesus, which is about 3 miles in breadth. In other places, they are only intersected by shallow valleys, which have been formed by the escape of the waters of the adjoining valleys to the sea.

Mount *Corax*, which has been already spoken of, forms the northern part of this range, and, with its base, occupies the whole space between the *inner* parts of the two gulfs of Smyrna and Ephesus. Its north-western extremity, which fronts the entrance of that of Smyrna, has two remarkable hillocks on it, serving for sea marks; so that the classical names of *Mimas*, *Corax*, and *Pagus* are actually in use amongst modern mariners, as we know they were amongst the ancient ones[1]. Towards the NE. it forms, with Mount *Pagus*, the fine valley of Sevdikui, and towards the sea, overlooked *Teos*, *Geræ*, *Lebedos*, and *Myonnesus*, and towards the gulf of Smyrna, that city itself, with *Clazomene*, *Temnos*, and the mouths of the Hermus. It extends about 20 miles, from NW. to SE., where a low ridge from Mount *Tmolus* joins it from the eastward, separating the

[1] A peak of Mount *Pagus* is the *leading mark* for the *inner part* of the gulf of Smyrna; and the peak of *Mimas*, and the *Brothers*, on Mount *Corax*, are those for the *outer* part of the same gulf. (Mr. Wilson.)

Sipili is also in use at Smyrna, for the mountain of *Sipylus*.

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plain of Sevdikui from that in which *Metropolis* was situated.

Gallesus (now Alyman) succeeds to *Corax*, and occupies the remainder of the space to the plain of Ephesus, in distance about 12 miles. It is lofty, rugged, and exceedingly steep on the SW. side, and on the SE., towards Ephesus, so much so, that the road from Smyrna winds round it, for several miles, to the SW., although the line of the general road is SE. [1]

Thus *Gallesus* forms the NW. side of the plain of Ephesus, whilst *Corissus* and *Pactyas* form the SE. side; the *Cayster* flowing between; but, in the present times, verges towards the S. side.

The inland road from Smyrna to Ephesus and Aiasaluk, passes at about 11 or 12 miles from the coast, and generally parallel to it, till it arrives at the extremity of *Gallesus*. It leads through a succession of rich valleys, well watered, and which formed one of the most fertile and beautiful parts of the Iönian state. The mountains that bound these valleys, on the side of the interior; that is, Mount *Pagus*, and various branches emanating from *Tmolus;* were also the interior boundary of Iönia.

The ruins of *Metropolis* occur in this route, near Tourbali, opposite the NE. extremity of Gallesus. There Picenini observed the ruins of an aqueduct and of a causeway, nearly in the same place. M.

[1] Mr. Hamilton ascended the SW. angle of *Gallesus*, and found a path across it, descending finally to the site of *Metropolis*.

D'Anville and others took Tireh, 15 miles farther to the eastward, for Metropolis, but it stood on the road between Smyrna and Ephesus, as Tourbali does, and at 120 stadia from Ephesus. The position assigned does not differ above 2 miles, and we know not how far the suburbs of Ephesus might extend to the north-eastward.

The site of Ephesus has, by M. D'Anville, been referred to Aiasaluk; but this is not correct. Aiasaluk is 5 miles from the sea, at the mouth of the *Cayster*, and stands on a hillock, in the plain; but Ephesus, besides covering the small hill of Mount Prion, adjoined to, and was partly built on Mount *Corissus*, which formed the south side of the valley, of which *Gallesus* formed the north; and the central part of the ruins of Ephesus are only 3 short miles from the sea. The reader is referred to the Travels of Drs. Pococke and Chandler, for a description of these ruins, but particularly to the former. Mr. W. Hamilton, and Captain Hayes, of his Majesty's Royal Engineers, visited the spot a very few years ago, and it is from their very accurate remarks, observations, and sketches, that the author has been enabled to approximate the distances, which the former accounts had left in doubt; otherwise M. D'Anville could not have fixed on Aiasaluk for the site of Ephesus, which latter is nearly two miles nearer to the sea.

There are two lakes, which seem to answer to the ancient descriptions *of the Selenusian;* the river Cayster now flowing between those lakes and the

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remains of Ephesus. But then, the alterations here, as in other alluvial tracts, have been great, and there is no question but that much of the present plain has been created, and the original one raised, by depositions of the river; perhaps, also, the old lakes have disappeared, and new lakes may have been formed, by the irregular progress of the filling up. The Cayster, however, is but an inconsiderable stream, in point of volume of water, but brings down an unusual proportion of mud [1].

The Caystrian plain commences immediately to the eastward of *Gallesus* and *Pactyas*; those two mountains having approached, and formed a kind of strait, at three or four miles above Aiasaluk.

From Ephesus, southward, a chain of mountains, or rather hills, continues to line the coast; and others, equally deserving of notice, extend inland to the eastward. It will be the most regular plan to proceed first along the coast.

Corissus occupied the angle formed by the Cayster, near its *embouchure*, and the sea-coast, to the southward of it; having, as we have said, a part of Ephesus upon it. It extended only a few miles each way, and had, on the E., the termination of *Pactyas;* forming between them a narrow valley, open to the southward (in which lay the road to *Magnesia* and Tralles.) About the place where *Corissus* terminated on the sea-coast, was *Pygela*, or *Phygela;*

[1] Dr. Chandler (p. 133,) supposes that the hillock, on which Aiasaluk stands, is the island of *Syrie* mentioned by Pliny (lib. v. c. 29); which, in his time, was a good way within land.

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and in the same neighbourhood, though not recognised in modern geography, *Ortygia*, and the river *Cenchrius*.

The chain is here broken into small masses of mountains, or high hills; the ancient names of which cannot be applied, through the want of discrimination, in the ancient geography; had the modern been ever so perfect, and which is by no means the case. We hear of the mountains of *Solmissus* and *Casimo*, between Corissus and *Mycale*, but want particulars.

Mount *Mycale* is understood to be that whole mass of mountains, which, on one side, faces *Samos* and the sea; on the other, the plain of the Mæander; and terminates on the SW., at the Cape of *Trogilium*, now Cape St. Mary. It appears to be from 4 to 5 miles in breadth, and may be reckoned 12 to 14 in length. *Panionium* stood on the side facing the sea, 11 miles above the fore-mentioned cape; and *Priene*, on the opposite side, at the mountain foot, with its citadel on the edge of the lofty precipice above it. There are very considerable remains of antiquity here, both above and below; of which elegant drawings may be seen in the Iönian Antiquities. See also Chandler, p. 161, *et seq.*

Priene and *Myus* were the two first cities founded by the Iönian colonies; and, at that period, stood on the sea-coast, having ports. Now, Priene is more than 7 miles inland; Myus still more; and its site covered up by the mud of the Mæander, and only recognised by its position, in respect of *Miletus*. The modern name of Priene is Samsoun.

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Panionium is generally supposed to stand a little above the modern village of Changli, where Dr. Chandler saw an inscription, but no other remains. This ought to be examined, as well as the environs, by some future traveller. A temple of Neptune, consecrated to such a use, may be supposed to have left some traces.

Mycale, independent of its historical importance, is a remarkable point in the view of physical geography. It is the converging point at which the Iönian mountains, from the N., join with those from the NE., which skirt the plain or valley of the Mæander, on the side of Lydia and Phrygia. At the date of the Iönian migration, it was washed on the E., as it is now on the S. and W., by the sea; and the ancients certainly believed that the gulf of the Mæander, like that of Smyrna, entered very deeply into the land. We can readily believe that it penetrated to Magnesia and Tralles; Mr. Hamilton saw *naked rocks*, like islets, of the kind of those of *Lade*, Osebasha, &c., between Tralles and Magnesia; and Pliny speaks of the island of *Hybanda*, belonging to Iönia, which, in his time, was 200 stadia within land. (Lib. ii. c. 89[1].)

[1] There are on this coast many *rocky islets* sticking up in the plains, formed in the different gulfs, by alluvions. Dr. Chandler compares them, with truth no doubt, to the rocky islets in the Archipelago. The changes *here* are made apparent, by reference to historical records, and therefore are more pointedly remarked. In other parts of the world, we have no other proof than what the appearances themselves offer; but to an experienced eye *this* is equally convincing.

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Samos, a member of the Iönian league, is separated from *Mycale*, by a narrow strait of 7 stadia, and may be supposed to have constituted a part of the continent in early times.

Returning to the side of Ephesus, we shall now close the account of the mountains of Iönia, &c., to the eastward of that place.

Pactyas terminates from the northward, opposite to *Corissus*, forming with it the narrow valley, through which lay the road to Magnesia and Tralles. The course of the same road leads, at the distance of some miles, farther on, over Mount *Thorax*, which is the continuation of *Mycale*, from the SW., and of *Messogis*, from the E., and which, collectively, form the northern boundary of the plain of the Mæander. *Magnesia* is situated to the SE., and near the roots of *Thorax;* whilst *Messogis* approaches, on the NE., and both together form a deep recess to the N., from whence issues the stream, anciently named *Lethæus*. The Mæander flowed to the S. of this famous city, at the distance of a mile and a half. A village named Inebazar (or the Bullock Market) stands on the opposite, or eastern side of the *Lethæus* [1]. The plain of the Mæander here, from a general westerly course, turns suddenly to the SW., for about 30 miles, where it terminates on the coast. In consequence, Magnesia stands at the upper part

[1] We are indebted to the kindness of Mr. William Hamilton for this information respecting Magnesia and the mountains in its neighbourhood. That respecting the termination of *Pactyas*, &c., is from Chandler, p. 142. 145.

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of a very deep bend in the course of the river that flows through it.

Magnesia was beyond the boundary of Iönia, and it is not known with certainty, at what point the boundary passed the ridge of *Thorax*, or the *Mæander;* but Mount *Titanus* appears to have been the boundary beyond it. The breadth of the plain here is about 7 miles.

We have now pursued the subject of IÖNIA into CARIA. *Miletus* was unquestionably within the boundary of Caria, being on the *south* of the Mæander; but with respect to *Myus* we have been left in doubt; for although we are told by Herodotus and Strabo, that the Carians *possessed* it, yet they say the same of *Priene;* so that it related only to the original possessions of the Carians, before the Iönian migration. At that time, Myus stood on the sea-shore, (or rather on that of the gulf of *Latmus,*) and had a port; but we are not told whether the site was on the *Lydian* or the *Carian* side of the Mæander. One might conclude that a preference would be given to the *solid* ground, on the Carian side, rather than to the *alluvial* soil of the other. Most authors have concluded on the former. M. D'Anville, in his map of Asia Minor, places it on the Lydian side; in the text of his Ancient Geography, on the Carian.

To these are to be added, *Heraclea under Latmus,* the town and temple of *Branchidæ,* on the promontory of *Posidium,* and according to Pliny, (v. 29,) *Iassus.* But Strabo (632) terminates Iönia at the *Sinus Basilicus,* immediately to the southward

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of Posidium; and it is worthy of remark, that Dr. Chandler (p. 154) says that it forms the limit of a grand jurisdiction, in modern times.

It is proper that we should notice the great changes on this coast, at the mouth of the Mæander, by the amazing deposition of mud and earth in the course of ages [1]. Changes that have so completely altered the face of things, as described by the ancients, that the first of modern geographers was totally misled in his estimate of the ancient geography, by attempting to reconcile it with the modern, on the ground of the imperfect descriptions of it in the ancient books. M. D'Anville had no conception that the gulf of *Latmus* received the Mæander; but supposed a considerable space to exist between them; and therefore places *Miletus* 12 miles from the mouth of the Mæander, although in reality they were both in the same place. Nor was he aware that the gulf itself no longer existed: that its wide

[1] The gulf must necessarily have been very *shallow* at the date of the Ionian migration, in order to admit the possibility of the change having taken place during the interval. In other words, the river had for ages been depositing its mud *unseen;* so that there might have been just depth enough for navigation, (12 or 14 feet, perhaps): otherwise the shore could not have gained 40 stadia between the date of the foundation of Priene, and that of Strabo. (Strabo, page 636.) One cannot suppose there was *less* than 14 feet depth at Priene; still *more*, at 40 stadia farther out. This was filled up to a height above the surface of the sea, and at the rate of 26 or 27 feet in extent, *per annum*, (admitting the chronology,) across the whole gulf of 6 miles in breadth; by a river not more than a furlong in breadth. This is truly wonderful!

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opening to the sea was closed up by alluvions; and the island of *Lade*, so often mentioned as a rendezvous in the history of the naval warfare of ancient times, become a part of the main land, rising, like the rock of Dumbarton, from the marshy soil; and, moreover, that the inner part of the gulf was transformed into a fresh-water lake!

At the date of the Iönian migration (B.C. 1055), the state of things seems to have been this. Between the promontory of *Trogilium*, and that formed by the extreme northern point of Mount *Grius*, in Caria, a gulf of 6 miles in width penetrated into the land, in a NE. direction, as high as the site of Priene, and of Myus; the Mæander falling into it, at or near Myus. The gulf then changed its direction to the SE.; and penetrated in that direction still deeper; filling up the bason, or hollow, between the mountains *Grius*, *Latmus*, and *Titanus:* and having, at its extremity, the city of *Heraclea* of *Latmus;* (called also *Latmus).* The gulf, altogether, penetrated upwards of 20 miles within the present shore, at the mouth of the Mæander; at first carrying a breadth of 6 to 7 miles; and in its SE. part from 3 to 5.

At the very entrance of the gulf, but nearest to the side of Mount *Grius*, were two rocky steep islets, nearly contiguous, extending in length, collectively, from N. to S., a mile and three quarters; their names *Lade* and *Asterius.* At $2\frac{1}{2}$ miles within *Lade*, and on a shoulder of the promontory of Grius, stood the famous city of MILETUS, the pride of IÖNIA, according to the father of history. Its port, now a part of the

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main land, was situated on the west of the city; and between it and the promontory. The fountain *Biblis* flowed into the head of it; but is now intercepted by the course of the Mæander.

Such *was* the gulf of *Latmus*, at the time it first became known to the Greeks; since which, it has been filling up with an astonishing rapidity; so that, instead of presenting the idea of a gulf, there is not even the appearance of an inlet; the river mouth excepted [1]. The mud of the Mæander having been deposited across the SE. arm of the gulf, formed its upper part into a lake, which soon became fresh, when the access of the sea water was barred out; as

[1] *Lade* was about a mile and half *within* the verge of the shore, in 1776, (Choiseul), and *Miletus*, 4 miles. It is now named *Palatsha*. See Dr. Chandler's Travels, p. 146.

The principal remain of Miletus is a ruined theatre of vast dimensions, being in length upwards of 450 feet; the external face marble. The Mæander runs close by the north side of the site; which is distinctly made out by means of the broken walls, arches, and heaps of rubbish: and appears to have been more than a mile and three quarters in length. This seems, however, to refer to the *enceinte* of the walls only; for it is probable that extensive suburbs, formed of perishable huts, existed towards the land side.

Perhaps there never was a single city that performed more in the way of colonization; and in distributing the knowledge of the useful arts.

M. D'Anville did not believe that *Palatsha* was the site of Miletus. He has accordingly placed it at 11 or 12 miles farther to the southward; probably from the difficulty of comprehending, or for want of knowing, the changes that had taken place; and that the Mæander, which had been 7 miles distant from Miletus, had now reached it. Under this impression, who could have decided otherwise than he did?

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it receives a great quantity of land waters from the surrounding mountains; and, accordingly, a constant stream flows from it into the Mæander. It is named the lake of Bafi, from a town at the south-east corner; it is about 12 miles in length, and 3 to 5 in breadth; the water insipid and not drinkable.—*(Chandler)*.

We learn from Pausanias *(Achaicis,* c. 2.) that, on occasion of the conversion of a *small* bay of the sea into a fresh-water lake, by the depositions of the Mæander, *Myus* became so annoyed with gnats, that the inhabitants abandoned it, and retired to Miletus. Strabo also mentions the removal; but not the cause.

Dr. Chandler supposed that the lake in question was that of Bafi; and that Myus stood at the head of it, where we should place *Heraclea* of *Latmus*. Now, besides the improbability of a lake of 12 miles in extent being in the contemplation of Pausanias, the nature and position of the site is altogether out of the question. For Myus was situated on the Mæander, and in the plain of that name; but the lake of Bafi has rocky shores; and the Myus of Dr. Chandler is not within 12 or 13 miles of any tract, in which the Mæander could ever have flowed. The testimony is also pretty clear, that the lake of Bafi was not formed in the time of Strabo, or Pliny; or even in that of Pausanias. And, finally, that Strabo certainly places Heraclea of Latmus at the head of what is at present the lake of Bafi. Here follow the authorities.

In the time of Strabo, the sea had retired 40 stadia below Priene, on the north side of the valley of the Mæander; 30 on the opposite side; for Myus was so much above the mouth of the Mæander. In the time of Pliny, the same mouth was yet 10 stadia above Miletus, (lib. v. c. 29). Of course, the gulf of Latmus must have *continued open* to the time of Pliny at least; and therefore the lake that gave occasion to the removal of the *Myusians* could not have been that of Bafi, since it did not exist at the time. Besides, Pausanias says a *small* bay, very inapplicable to the gulf of Latmus, which was 20 miles in extent[1].

But the manner in which the annoyance at Myus happened is very easily conceived. Every one must have observed, in the progress of alluvion, towards forming firm land, that hollows are left; and that the stagnant water in them is more pernicious and annoying in its consequence than *gnats*. Both causes probably concurred here; only the latter was the most obvious and distressing.

Strabo (page 636) speaks of the marshes, &c. He says, that "from *Miletus* to *Pyrrha* in a *straight course* [that is, *not round* the gulf of Latmus, which he had been speaking of] is 30 stadia—from thence to the mouth of the Mæander, 50; the ground *marshy* and *muddy;* [it being the alluvial border of the coast.] From thence you sail up to Myus, 30 stadia. And after the mouth of the

[1] Achaicis, chap. ii.

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Mæander is the coast opposite Priene, which place, although formerly a sea-port, is now 40 stadia within the shore."

In the same page are notices decisive of the situation of Heraclea; for he says, "Beyond Miletus is a gulf or bay called *Latmus*, from the neighbouring mountain [1].—In this bay was *Heraclea under Latmus*.—After Heraclea was Pyrrha, [the one beforementioned,] the distance between them by sea, 100 stadia; and from Heraclea to Miletus was *somewhat more*, COASTING THE BAY." Here is evident proof, that the whole bay or gulf remained open: the separation of the lake, had it happened, was too curious a circumstance to have been omitted: besides the whole together is called *a bay*.

It will be found on the Map, (No. XII.) that the 100 stadia between the supposed Heraclea and Pyrrha will agree; for we are to suppose by what Strabo has said, that Pyrrha was nearly opposite to Miletus, on the eastern side of the gulf, with a ferry between them; and that ferry probably somewhat *above* Miletus, to avoid encountering the swell of sea that must necessarily have prevailed in such a gulf, and with a prevalent westerly wind; had they crossed too near the direction of the line of the entrance. But from Heraclea to Miletus, it would require 130 stades, instead of a little more than 100. Still, however, it must be allowed that the authorities for

[1] It is equally probable that both the *Sinus* and the *mountain* were named after the town *Latmus*, which was very ancient; as we say, the *Bristol Channel*, gulf of *Venice*, &c. &c.

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Heraclea point clearly to a position near the head of the present lake of Bafi, and to the side of the *Mæander*, for *Myus*. Dr. Chandler has the merit of being the first person who gave any distinct notices respecting the changes in the gulf of Latmus; and yet seems not to have applied them to the purpose. This was a task left for M. Choiseul Gouffier.

But the distance given of 50 stadia between Pyrrha and the mouth of the Mæander seems improbable. The Mæander has kept to the Carian side, as is evident by Pliny's saying, that its mouth was only 10 stadia from Miletus in his time. The courses of the waters of Sukui and Priene also prove a declivity towards the Carian side. It is not likely that much alteration in this respect had taken place between the times of Strabo and Pliny.

No point, on the opposite side of the gulf to Miletus, at 50 stadia from the Mæander, could be within 30 stadia from Miletus, or even so little as 60; not to mention the obliquity of the traject, had there been a ferry between the places. One cannot make out much more than 120 stades, from the supposed site of Heraclea to the line of course of the Mæander; 150 would go far over towards Priene. The number 50 is therefore, without doubt, an error. Not that any one can pretend to fix the *then* site of the *embouchure*, but the words of Pliny, together with the southern declivity, are sufficient proofs that the course of the river was much in the same line as at present.

Dr. Chandler having placed Heraclea at the *west*

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side of the gulf of Latmus, and at 6 miles only to the SE. of Miletus, he calls *that* mountain *Latmus*, which extends along the west side of the gulf (now the lake Bafi) between *Miletus* and the *Sinus Basilicus;* (see pp. 150. 154. 171. 176. 178); and *Grius* he makes to be the *continuation* of the same ridge between the *Latmic* Sinus, and that of *Iassus*. This is the more remarkable, as he quotes into his book, (page 176) as an authority, the passage in Strabo, in which Heraclea is placed at more than 100 stadia from Miletus, and 100 from Pyrrha; yet neither of these places are quite 6 miles from Miletus, on his map, at the beginning of the book.

It appears that the ancients themselves were not clear in their ideas of Mount *Latmus;* some of them taking *Grius* for it. But in respect of the identity of the *latter* there was no doubt. For Strabo says, (page 636) "Some take *Latmus* to be the same with Mount *Grius;* which, rising in the district of *Miletus*, runs eastward in a parallel direction to the *Latmic* Gulf, overhanging *Heraclea*, and penetrating deep into *Caria*, even to *Euromus* and *Chalcetoor* [1].

Grius, then, manifests itself in the long narrow ridge, extending from *Miletus* to *Iassus*, parallel to the lake of Bafi; the head of the *ancient* gulf of *Latmus*. But it does not *penetrate deep* into *Caria:* and one can only reconcile this seeming mistake, by supposing that the continuation applies

[1] For this quotation from the original text of Strabo, the author is indebted to his excellent friend Dr. Gillies.

to the mountain, which commences at the east end of the lake, and runs eastward by *Alabanda;* and which is called by D'Anville, Pococke, and M. de Choiseul Gouffier, Mount *Latmus.* For it *may* be connected with *Grius,* by a low ridge across the valley, between Bafi and Mendelet. (See the Map, No. III.)

In no way can the ruins taken for *Heraclea* be said to be under the mountain, on the west of the lake; and Strabo's distances agree with no other position. To those who entered the *Sinus,* the mountain on the east (Pococke's *Latmus)* would appear to be OVER *Heraclea;* being seen in a line with it, and also *near* it. And this is the only explanation we are able to give. *Heraclea,* wheresoever it be, must determine the place of Mount *Latmus.*

The Temple of *Apollo Didymeus* and city of *Branchidæ* stood on the promontory of *Posidium,* at 2 or 3 miles within the shore. Pliny gives it at 180 stadia from Miletus; but this is an error, as the ruins of the Temple are now found on that promontory (called Cape del Arbre) at less than 12 miles southward from Miletus. From a view of its remains, in the Iönian Antiquities, one is led to consider it as one of the most beautiful fabrics of antiquity; justifying Dr. Chandler's remark; that "the columns yet entire are so exquisitely fine, the marble mass so vast and noble, that it is impossible perhaps to conceive greater beauty and majesty of ruin. The memory of the pleasure which this spot afforded me, will not be soon or easily erased." (P. 151.)

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From the promontory of Posidium, the coast bends quickly to the eastward, to form the *Sinus Basilicus*, the proper southern boundary of Iönia. The head of this gulf approached within little more than 8 miles of the inner part of the gulf of Latmus, and of the mountain of the same name, the presumed limit on that side.

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CHAPTER III.

CARIA.

Caria is the last of the provinces of Asia Minor in the present series, along the Ægean Sea; and forms the SW. angle of that tract. It has, accordingly, the Ægean Sea to west; the eastern bason of the Mediterranean Sea on the south; Lydia on the north; Phrygia and Lycia on the east and south-east. It is one of the smallest divisions of Asia Minor; its extreme length from E. to W. being about 90 G. miles; and its breadth 70.

In modern geography it answers to the province of Mûntesha; having on the east Hamid and Teké; and on the north Aidin. Mogolah, situated towards the gulf of Rhodes, is the present capital. The islands of *Rhodes* and the *Sporades* appertained to Caria.

The Mæander river formed the common boundary of Caria and Lydia, (as now of Aidin and Mûntesha); whilst Iönia, as we have seen (under a distinct classification of provinces), contained a part of Caria as well as of Iönia. Accordingly, the sea forming the two other boundaries of Caria, there is

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only one, that is, towards the east, that involves any uncertainty in respect of its course.

The common boundary of Caria and Phrygia, on the Mæander, was at *Carura* (Strabo, page 663) 740 Roman stades up the Mæander from Ephesus, according to the same author. At 11 or 12 miles to the SE. of Carura is a snowy peak, remarked by Dr. Chandler, the termination, westward, of a lofty ridge of mountains, which answers to Mount *Cadmus;* a branch of Taurus, stretching to the NW. from the great upland of northern Lycia. We regard Cadmus as the unquestionable boundary of Caria towards *Phrygia Pacatiana;* since Geyra, or *Aphrodisias,* a Carian city, stood on the west side of it; *Cibyra,* in Phrygia, on the east of it. The remainder of the eastern boundary, inland, cannot be supplied, through the absolute deficiency of the actual geography. *Tabæ,* in the march of the Consul Manlius, was situated in Caria; and the ridge of mountains between it and Cibyra, i. e. *Cadmus,* formed the boundary. This city, under the modern name of Tabas, was well known to M. D'Anville, it appears; and we have placed it, on his authority, in his modern geography [1].

Livy, however, (lib. xxxviii. c. 13), says, that *Tabæ* is on the confines of *Pisidia;* but this is an error, as *Phrygia* intervenes. The provincial arrangement in this quarter was extremely vague at that time; and that of Pisidia in particular.

[1] M. D'Anville says (Article *Caria*) "*Tabæ* is well known in the name of Tabas."

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The gulf of *Telmissus*, or *Glaucus*, now Macri, appears to have formed the general boundary between Caria and Lycia on the southern coast; *Telmissus* itself being in Lycia; and *Dædala*, next to it, in Caria.

According to the above ideas, the greatest length of Caria, towards the north, will be from *Carura* to the Temple of *Branchidæ*, in a WSW. direction; and in the south between *Dædala* (taken for Tallaman) and the promontory of *Cnidus*, or *Triopium*. And its greatest breadth, from the Mæander opposite Nysa, in Lydia, to Cape Valpe, the *Cynossema* promontory, near Rhodes.

Caria is as remarkable for its deep gulfs, and projecting promontories, as Lydia for its series of valleys. Whilst the gulf of Latmus existed, Caria had four gulfs opening towards the Ægean Sea which penetrated the country from 20 to 30 miles; forming the tract towards the Ægean Sea into peninsulas of great celebrity in ancient history. This happy distribution of land and water was the most congenial to the habits of the Greeks, or of those who formed themselves on their system (as the Carians, after the Iönian migration); and one cannot sufficiently lament that such a field for the industry and ingenuity of mankind, here, as well as in Iönia, Æolis, &c. should be rendered almost useless by Turkish sloth and tyranny, joined to Mahomedan superstition.

The first of these gulfs, the *Latmian*, of which the lake of Bafi is the only remain, has been already described, as belonging to Iönia, (p. 30—32.)

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2. That of *Iassus* (now Assem-kalusi, from the island and city, or castle of *Assem*, or *Yassem.)* This had the above island at the head of it: it is now joined to the main by the earth washed down by the torrents from Mount *Grius* and *Latmus*.

Besides this alteration, history and appearances prepare for the belief of much greater changes. Dr. Chandler (page 184) has noticed a rocky hill in the plain, with ruins on it, which he suspected might be those of *Bargylia* (from whence also the gulf was sometimes denominated); also two lakes, in the same plain, communicating with the gulf. From all these appearances, it may be inferred that the gulf once covered that whole plain; and that the lakes are a part of the gulf not yet filled up.

At the head of this plain or valley the Doctor discovered the ruins of a temple, which he takes for that of *Labranda*, (see p. 196); but Choiseul Gouffier for *Euromus*. It certainly does not appear to suit the position of Labranda, which is said to have been 60 stadia from *Mylasa towards Alabanda*. The distance of the ruin from *Mylasa* is 11 G. miles, equal to 110 Roman stades; and *Alabanda*, if at Carpoosley, as is supposed, the temple cannot be said to lie *in the way* from Mylasa to Alabanda, the temple being to the NW., Alabanda to the NE. The temple of Labranda was said to be on a *hill*, (Strabo, p. 659); but the one in question is in a *valley*, between Grius and Latmus.

But was there a temple at *Euromus?* and was not Euromus farther to the eastward, as seems to be implied from Strabo's words in page 636? So little

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is known respecting the geography of the *interior* of Caria, that it is difficult to refer the ancient names to their proper places, even in *the few that are known.*

The tract between the gulfs of Latmus and Iassus has already been described, under the article Iönia.

3. The next gulf in order, going southward, is that of *Ceraunus,* from a city of that name within it, now Keramo. It is now called the gulf of *Stan-Co,* from the island that was anciently *Cos,* and which lies at the entrance. It penetrates the land more deeply than either of the others, and has at its head the port of *Mylasa* (now Melasso); from whence that city is distant 80 stadia, according to Pausanias, [to the north.]

The Ceramic gulf is formed by two remarkable peninsulas; that on the north containing the cities of *Halicarnassus, Myndus, Caryanda,* and *Ceramus;* on the south, the seats of the Dorians; at the extremity of which was *Cnidus,* and the *Triopium* promontory. *Halicarnassus* is now named Budroun. Its fame, on occasion of being the natal place of the great father of history, and the residence of queen Artemisia, might have sufficed, without that occasioned by its obstinate defence against Alexander. *Myndus* is still known as Mendes.

4. The fourth and last gulf is that named from Doris, and *now* from the island of Syme, that lies at the mouth of it, and which has not changed its name. The form and detail of this *Sinus* is less known than that of the others; although very important corrections have been made in it lately. Not only was the

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island of Rhodes placed 35 minutes of longitude too far to the west, which falsified the whole suite of positions from Smyrna, southward, but the entrance of the gulf in question was placed to the north, instead of the west, of Rhodes. Now, the SE. point of the entrance, Cape Volpe *(Cynossema)*, is placed by celestial observation; and the head of it approximated by its vicinity to the port of Marmora *(Physcus)*; fixed also by celestial observation.

The *Doridis Sinus* is formed on the north by the territory of Doris, or peninsula of *Cnidus*; and on the south by that of *Phœnix*, or *Loryma*, which was terminated by the promontory of *Cynossema*, or Cape Volpe.

This peninsula is included in the maritime tract named the *Peræa* of *Rhodes*; of which it formed the western extremity. This tract, denominated from its situation in respect of Rhodes, (as being separated from it only by a narrow channel) extended from Cape Volpe on the west to *Dædala*, situated on the inner part of the *Glaucus Sinus*, or gulf of Macri, and was in length about 70 miles. It appears to have been in the possession of the Rhodians, from the earliest date of their power; and was confirmed to them by the Romans, for their important services in the war with Philip. Sometimes they possessed the whole coast, westward, as far as *Iassus*, (Livy, lib. xxxii. c. 33.) Nothing in history surprises us more than the power acquired by small maritime states, or islands, that have created great fleets; although perhaps the most precarious of any.

The cities and towns within *Peræa*, were *Physcus*,

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Caunus, Dædala, on or near the sea-coast; the castle of *Imbros,* near *Caunus;* and that of *Phœnix,* on the NE. of *Loryma;* Calynda and Pystus within the coast. Peræa was a very narrow tract.

Of these, *Physcus,* now Castra Marmora, lies directly to the north of the city of Rhodes, distant 18 miles; but the canal between Rhodes and the peninsula of *Phœnix* is not more than 11 miles across, at its western entrance.

Castra Marmora has one of the noblest ports in the world, both for shelter and the accommodation of a fleet in the articles of wood and water. Here our armament rendezvoused previous to the glorious expedition to Egypt in 1801. And at the distance of only 5 or 6 miles from the entrance of this port is that of Karagatch, little inferior to the other; but which does not appear to be marked in ancient geography. Perhaps, one cannot express in stronger terms the defective state of the modern geography of this quarter, than by stating that Karagatch is placed in the modern maps at 10 to 18 miles from Castra Marmora, though in reality only 5 or 6.

The head of the gulf of *Doris,* or Syme, was *skirted* by Mr. Hamilton at little more than 4 hours' travelling, on the road from Castra Marmora to Mogollah, (that is, *northward): there,* after crossing the hilly tract that separates the gulf from the coast of *Peræa,* he descended into a deep valley of 4 or 5 miles in breadth; bordered on the north by a chain of steep mountains (the continuation of that which runs through the peninsula of *Doris,* from *Cnidus,* eastward); as that to the south was the

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continuation of the mountains of *Phœnix* and *Loryma*. The ascent to the north was a *made road;* steep and winding. A small river flowed through the valley, which was very low and marshy: and hence we may suppose that the gulf of Doris, also, penetrated higher up the land anciently, than at present.

We cannot but conclude that the artificial road, up the steep mountain, was a part of that great road described by Strabo (p. 663), from the port of *Physcus* to *Ephesus;* through *Lagina* and *Alabanda:* of which more will be said in the sequel.

Karagatch, as we have remarked, is not taken notice of in ancient geography. Being separated from *Physcus* in the upper part only by a narrow slip of land, it may possibly have been regarded as a *member* of it.

Caunus succeeds to Karagatch, going eastward. This is unquestionably the Coujak of Mr. Hamilton; written Kaiguez by others. It is short of 20 miles from Castra Marmora. The ancients describe it as a most unhealthy place, particularly in summer and autumn, (Strabo, p. 651): it was even proverbial, as a scene of death. Mr. Hamilton describes Coujak as being situated at the head of a lake, communicating with the sea; and as having a considerable fishery. And it was situated beyond a river, that answers to the *Calbis,* (Strabo, p. 651); a river formed from branches from the N. and NE.; the former of which passes by Mogollah, the latter appears to come from the quarter of Mount *Cadmus.* It was the principal river of Caria. It is probable that the unhealthiness of *Caunus* (Coujak) arose

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from the exhalations from the mud of the lake in the dry part of the year [1].

M. Choiseul Gouffier crossed the two branches of this river in his way to the ruins of *Telmissus;* and supposed it to be the *Calbis.*

No rule is given for placing *Dædala,* only that, being the most distant of the cities of the *Peræa,* which appears to have extended to the head of the *Glaucus Sinus,* it may be supposed to occupy the site of Tallaman, 8 hours of Mr. Hamilton's travelling beyond Coujak, eastward; 8 short of Macri, which succeeded *Telmissus,* though not on the same site.

Besides the *Calbis,* M. Choiseul crossed three other streams, in his way from that river to *Mye,* the site of Telmissus; besides a fourth at the place itself. The first of these appears to be the *deep* river crossed by Mr. Hamilton, at 4 hours from Coujak. D'Anville places *Calynda* on this river, said by Strabo to be in this quarter, 60 stadia inland; and opposite to the cape or promontory of *Artemisium,* now *Pent Ekilis.* The *Calyndici montes,* which M. D'Anville places to the west of *Calynda,* M. Choiseul places to the east. This also is a projection from *Cadmus.*

A very small island named *Eleusa* is said to lie 120 stadia from Rhodes, and 4 stadia from the shore, opposite to the mountains of *Loryma*

[1] Herodotus (Clio, 172.) speaks of the *Caunians* rather as a *people* than as the inhabitants of a single town; and supposes them to have been the aborigines of Caria.

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or *Phœnix:* the circumference of the island 8 stadia[1].

The position cannot be mistaken; as Cape Marmora is distant only 14 G. miles N. $\frac{3}{4}$ E. from Rhodes (town); and the island in question 12 such miles (if *Roman* stades, as supposed); whilst the coast trends to the south-westward from Cape Marmora. So that it can be only a few miles from this cape; and Galiano has an island much in that situation.

In Ptolemy, in the quarter of *Dædala*, is *Carya*, on the sea-coast. There is a Cari, intended for a modern place, in the same position, in Choiseul, and also in Galiano. But Ptolemy assigns both *Carya* and *Calinda* to Lycia, making the *Calbis* river the common boundary.

It has already been stated, that very little is known respecting the interior of Caria. The routes of modern travellers, which throw most light on the subject, are those of Mr. W. Hamilton, from Castra Marmora *(Physcus)* to Guzelhissar *(Tralles)*, through Mogollah; and of the same gentleman from Mogollah to *Telmissus*, near Macri, through *Caunus:* that of Dr. Pococke from Guzelhissar to Melasso; and along the Mæander to Geyra: that of Dr. Chandler from Melasso to Eskihissar, or *Stratonicea:* those of Mr. Hamilton and Dr. Chandler across *Titanus* and *Latmus*, respectively: and finally, that of M. Choiseul Gouffier, from *Iassus* to *Telmissus.* But even the farthest inland of these routes, which is

[1] There is another island of this name, on the coast of *Cilicia*, opposite *Corycus*.

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Mr. Hamilton's from *Caunus* to *Tralles*, does little more than divide CARIA into two equal parts; so that the *eastern half* is still almost unknown; for in that quarter, only two positions are ascertained: that is, *Geyra*, taken for *Aphrodisias*, placed by Dr. Pococke in the north-eastern corner of the province; and *Tabæ*, or Tabas, placed by M. D'Anville nearly in the middle between the sea and the *Mæander*.

To begin with the northern frontier, along the *Mæander*, Dr. Pococke found the ruins of an ancient city at *Jenishaher*, in a position answering to *Antiochia*, on the Mæander, 56 MP. above Magnesia [1]. And a few miles lower down was another ruin, bearing the name of *Arpas-kalasi*, probably *Harpasa*. Geyra, or *Aphrodisias*, where there are many Grecian remains, lies about 14 miles to the ESE. of *Antiochia*.

The Consul Manlius (B. C. 189,) in his way from Ephesus to *Antiochia* and *Tabæ*, appears to have made three marches between *Magnesia* and the river *Harpasus*; and his first camp appears to have been at *Hieracome*, on the south of the *Mæander*; expressly said to be two marches short of the *Harpasus*. *Hieracome*, therefore, ought to have been opposite to *Tralles*.

M. D'Anville has a place named Ortaki, which he

[1] Pliny says (v. 29) that *Antiochia* was environed by the rivers *Mæander* and *Orsinus*. The river of Geyra, or *Aphrodisias*, joins the Mæander at the above site; and is named at present *Gergeree*. Chandler took Jenishaher for *Orthosia*, but his whole suite of *ancient* positions is too much to the east; owing to the original error of taking Guzelhissar for Magnesia.

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supposes to have been *Orthosia.* Mr. Hamilton found some very considerable ruins in the same quarter; that is, between *Heraclea* of *Latmus* and *Tralles.*

Alabanda appears to have been the most considerable city in the northern quarter of *Caria.* Its general situation is pointed out by the circumstance of its lying in the great road from *Tralles* to *Physcus (Guzelhissar* to *Castra Marmora),* given in Strabo, (p. 663.) As the bearing between these places is about SSE. and NNW., the remains seen by Dr. Pococke, at Carpoosly, and by him taken for those of *Alabanda,* will agree in bearing very exactly. The distance is too large; Strabo allowing 160 stades only, from *Tralles;* whilst the position requires 210. But then, the whole distance between Tralles and Physcus is very much corrupted: that is, 1260 instead of about 700, which arise on the construction. Moreover, the Mæander is said to cross the road midway between Tralles and Alabanda; or 80 stadia from each: but the Mæander flows within 3 or 4 miles of Tralles: so that error seems to pervade the whole line [1]. Dr. Chandler also visited these ruins, which are very considerable.

Strabo (p. 660) gives so good a mark for finding *Alabanda,* that one is surprised that neither Pococke nor Chandler should have sought for it; the latter, particularly, who quotes the passage. It appears that Alabanda was situated at the side of a

[1] See a more particular discussion of this road under the head of *Roman Roads,* chap. viii.

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hill that was remarked to have the form of an ass, with a pack-saddle on his back [1]. It is mentioned by the above author (p. 658) as one of the *three* principal cities of the interior of Caria; *Mylassa* and *Stratonicea* being the other two.

Alabanda is situated on a branch of the river of China, the second river of Caria, and apparently the *Marsyas* of Herodotus. It joins the *Mæander* opposite to Guzelhissar, or *Tralles*, and was unknown to M. D'Anville. It is denominated from the town of China, situated a day's journey to the SE. of Guzelhissar. Its source is not known, but it probably flows from *Mount Cadmus*, in the quarter opposite to *Cibyra* [2]. Herodotus relates (Terpsich. 119) that the *Carians*, having been defeated by the *Persians*, on the banks of this river, retired to *Labranda;* which (Strabo says, p. 569,) is 60 stadia from *Mylassa*, in the way to *Alabanda*.

There are said to be antique remains at China; but its ancient name has not been guessed.

Mylassa, (now Melasso), the most considerable city in the south of Caria, was situated in a fine plain, and very convenient for the navigation of the two

[1] Had it been a *mountain*, instead of a hill, one might have supposed *Titanus* to have been intended; as its appearance is said to be very singular. Mr. Hamilton informs us, that the Turks call it "the mountain of the *five fingers*," from the height and sharpness of its rocky summits. (A mountain at the Caspian sea is distinguished in the same manner by the Turks.) Dr. Chandler's description of his passage near *Titanus* is in illustration of the above circumstance.

[2] Pococke says, in the *south-east* quarter of Caria, towards *Aphrodisias*.

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gulfs of *Ceramus* and *Iassus*, on the south and west, having its port 80 stadia only from the head of the former. The remains of its temples are grand and interesting.

Stratonicea (now Eskihissar) was situated 12 or 14 miles to the ESE. of *Mylassa*. A theatre, and other ruins, still mark the site. The country is mountainous; and from the known, or supposed, connection of those mountains with TAURUS, *Stratonicea* was described to be situated *ad Taurum*.

Alinda was a place of note in ancient history, both as the capital of the southern part of Caria, and as a post of strength, (Arrian, lib. i.) No hint is given by which its position may be approximated. M. D'Anville and others have placed it at Mogollah, the modern capital of the country. But Mr. W. Hamilton learnt that there is a place named *Elaina*, or *Alœina*, nearly midway between Mogollah and China; and about a league to the westward of the road. According to Pococke's description of the country, (vol. ii.) this position falls on the continuation of Mount *Latmus*, eastward.

A place named *Lagina* occurs in the great road from *Physcus* to *Tralles* and *Ephesus*, before-mentioned; but by reason of the corruptions in the numbers, nothing can be inferred in respect of its position. But it is doubtless the *Lakeena* noted by Pococke, as being precisely in the line of direction. It lies midway between *Stratonicea* and *Alabanda*, at the southern ascent of Mount *Latmus*. An ancient castle remains.

Labranda answers to the ruins on a hill, about 6

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miles to the NE. of *Mylassa*, mentioned by Pococke. Chandler, as we have seen, refers it to the temple at Kiziljik, which is quite out of the question, both as to distance and direction. See above, p. 43.

The march of the Consul Manlius, from *Ephesus* to *Ancyra*, &c. (B.C. 189,) throws some light on the ancient geography, in various places. It has already been stated that he crossed the *Mæander*, from *Magnesia*, and reached *Antiochia*. From this latter place, his route was very circuitous; for he only reached *Tabæ* in four marches, from *Antiochia*, although the direct distance be only about 28 G. miles. Thence he proceeded to *Cibyra*, in Phrygia, crossing Mount *Cadmus*. This distance does not appear to exceed 36 G. miles, although they employed several days on the march. But as their present view was the levying of contributions, great delays must necessarily have occurred. At *Cibyra*, we shall leave him for the present; where the conduct of the chief of the provinces is so perfect a picture of that of an *Hindoostanny*, under the like circumstances, that we cannot resist the temptation of referring the reader to the passage in Livy (lib. xxxvii., c. 14). At the same time, it furnishes a melancholy example of the insolent prosperity of a conquering nation, who consider all the rest of mankind as their slaves.

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CHAPTER IV.

LYCIA, PISIDIA, PAMPHYLIA, ISAURIA, AND LYCAONIA.

Lycia, Milyas, &c.

LYCIA is the next maritime country to CARIA, going eastward, along the coast of the Mediterranean sea. The southern and largest portion of it is a peninsula, bounded on the W. by the gulf of *Glaucus*[1], or *Telmissus;* and on the E. by a part of that of *Pamphylia,* (now called, respectively, the gulfs of Macri and of Satalia.) See Map No. III.

The northern quarter of Lycia lies wholly inland, and is almost entirely mountainous, being made up of parts of *Taurus, Cadmus, Cragus,* and *Anti-Cragus,* which unite here, and form the roughest country of Asia Minor; the seats, heretofore, of the *Cabalians, Milyans,* and *Solymi.*

Hence the Romans, in the time of Arrian, distinguished Lycia from Milyas, by calling it *Lower* Lycia; *i. e.* the *peninsula,* or *maritime* Lycia, in contradistinction to the *inland* and *upland*[2]. And

[1] Livy (lib. xxxvii. c. 16,) says that the *Telmissicus Sinus* is bounded on one side by CARIA, and on the other by LYCIA.

[2] Arrian's History of Alexander, lib. i.

it would appear that the name was originally applied to the peninsula alone; for Arrian, in the same place, says, "*Milyas* properly belonged to *Phrygia*, but, by order of the king of Persia (Darius), was added to *Lycia*."

Lycia, taken in the larger sense, had, to the NW. Caria; to the N., separated by Mount *Cadmus*, *Cibyra*, a province of *Phrygia Pacatiana*; and, on the NE., *Pamphylia* and *Pisidia*. On the south, the west, and the east, it was washed by the Mediterranean [1].

According to the ancients, Lycia was the last maritime country *within Taurus*; which mountain some reckoned to commence only at the *Sacrum*, or *Chelidonian* promontory; but which (as has been fully shewn elsewhere [2]) did really commence in *Caria*, at least. Here it should be noted, that Lycia did not extend, eastward, to the *inner* part of the gulf of Pamphylia, but was separated from that country and its gulf by the *southern arm* of Taurus, which, commencing at the before-mentioned promontory, detaches a branch to the sea-coast, near *Phaselis*, whose bold and steep descent to the shore occasioned it to receive the name of *Climax*. This southern arm of Taurus is so lofty, as to be generally covered with snow, and by its course, presenting itself across the course of the navigation along

[1] Ptolemy does not seem to have been aware that *Lycia* formed a *peninsula*, between *Telmissus* and *Phaselis*. He appears to have been in like manner ignorant of the existence o a peninsula between the Indus and Ganges.

[2] See the head Taurus.

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shore, forms a conspicuous landmark, particularly from the eastward. (Vide Livy, lib. xxxvii., c. 23.)

Under the above-mentioned boundaries, Lycia might have an extent of 90 miles each way. From its general fertility, the natural strength of the country, and moreover the goodness of its ports, Lycia was one of the most populous and rich countries of Asia, in proportion to its extent. It is also recorded, to the honour of its inhabitants, that they never committed acts of piracy, like those of Cilicia, &c.

The sea-coast of Lycia has undergone some change in the form of its geography, owing to the correction of the gulf of Macri, or *Telmissus*, which is found to enter much less deep into the land, and to point to the E. instead of the NE. It is found, also, that the main land of Lycia approaches much nearer to Rhodes, and the peninsula itself is much more extended in length.

The site of *Telmissus* is found at Mye, at the SE. corner of the gulf. Main, a modern town, lies more inland, and to the NE.

The coast called the Seven Capes, forming the eastern side of the gulf of *Rhodes*, is properly the termination of that ridge of Taurus named *Cragus*, and which has seven projecting eminences, more or less hollowed out by the waves of the sea. Strabo speaks of eight *vertices* of mountains. Here, also, the ancients placed *Chimæra*.

Cragus is reckoned, by Pliny, a member of *Taurus* (as well as *Sarpedon* and *Coracesius*). Ptolemy also has it, in the W. of Lycia, between the rivers

Xanthus and *Calbis ;* consequently it ought to be derived from *Cadmus.*

There are, in fact, no modern geographical notices respecting the interior of Lycia ; although the form of its coasts has undergone considerable improvement, by means of the observations of latitude and longitude at Macri, the Seven Capes, and Cape Chelidoni. M. D'Anville, therefore, must have formed the inland part of his Lycia from Strabo and Ptolemy. It appears to us, that Ptolemy gives clearer ideas of Mount *Cadmus,* and of the course of the *southern arm* of Taurus, than Strabo does, and we have accordingly adopted them [1]. In other matters, we have copied generally the inland geography of Lycia, as given by M. D'Anville, on a supposition that it cannot be improved, under the present state of our knowledge.

Strabo reckons, from Artemidorus, six large cities

[1] It agrees also with Dr. Chandler's observations, in his map and text. The snowy peak, the NW. extremity of *Cadmus,* near the *Mæander,* stands over Degnizlu, and the site of Laodicea *ad Lycum.* At four hours short of Degnizlu, they were encamped *under it,* (p. 221.) In p. 224, he says, "Our view eastward was terminated by mountains, not very remote. The summits, on the S. and SE., were covered with snow ;" and, in p. 227, he names the mountain *Cadmus.* His view to the SE. would probably have extended beyond *Cibyra,* having the northern flank of Cadmus open to him.

Strabo (p. 578.) justly remarks, that Mount *Cadmus* lies over *Laodicea,* called *ad Lycum,* and that the *Lycus* flows from those mountains. Pliny (lib. v. 28.) conducts the rivers of the *Cibyrates* into the Rhodian gulf, near *Caunus.* The truth seems to be that the waters on the west of Cadmus flow southward, and those on the east of it, northward.

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in Lycia:—*Xanthus, Patara, Pinara, Olympus, Myra,* and *Tlós;* the latter at the mountains towards *Milyas.* All these M. D'Anville has placed; together with *Limyra, Phaselis, Phellus, Antiphellus,* &c. Of these, *Xanthus* seems to be clearly recognised in Eksenide, or Axenide, on a principal river of Lycia, descending from the great upland of *Milyas,* and bearing the same name. *Patara* and *Myra* preserve their ancient names. Finica appears to be the port of the place anciently named *Limyra,* a good bay and anchoring place. The island *Cisthene* is now Castel Rosso. *Phaselis* is supposed to have been replaced by Fionda; and of *Olympus,* an ancient castle remains. The former is adjacent to the mountain of *Climax,* whose cliff, washed by the sea, Alexander ventured to wade round, with a part of his army. The conformation of this coast clearly explains the cause why the foot of this promontory is at times accessible to passengers, and at others impracticable, from the depth of water, and probably added to it, a boisterous wave. For between *Chelidoni* and *Side,* the sea forms a deep gulf, open to the S. and SE. Arrian tells us that, after a raging south wind had blown a long time, the north winds began. So that the gulf, which had first its *surface raised,* by the pressure of a strong south wind, and the water along its shores of course deepened, would become shallower, when the pressure was removed, by the operation of a land wind. These natural causes appear too obvious, to have allowed Alexander and his followers to regard the effect as the interposition of a divine power in their favour.

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A principal place in modern geography, named Almali, appears in M. D'Anville's map; and, in the geography of Abu Bekr: this may be the *Amelas* of Pliny, (v., c. 27,) classed with *Tlós*, *Podalia*, and *Choma*. This latter, Pliny says, is situated on the *Adesa* river, a branch of the *Xanthus*.

Strabo enters into much detail, respecting the sea-coast of *Lycia* (p. 664). He reckons its extent, from opposite *Dædala*, to be 1720 stades, (of 700 to a degree?) which distance reaches to *Olbia*, near *Attalea*, or Satalia. But he says that *Olbia* of *Pamphylia* begins at *Phaselis*, which place is at least 250 stadia short of *Olbia*; therefore 1500 would have been nearer. In another place (p. 666) he allows 367 stades, between the *Sacrum* promontory and Olbia. If this be meant of the beginning of the territory of Olbia, it would agree; but not less than 600 would reach to the city itself. One may conclude that the commencement of the territory of Olbia, that is of Pamphylia, was intended, in both cases.

Milyas, Cabalia, &c.

The countries of Milyas and Cabalia have been mentioned, as occupying the interior parts of Lycia; but from the almost absolute want of modern information, in this quarter, and the want of detail, if not of accuracy, in the ancient descriptions, the geography is subject to great uncertainty. All that is

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known for certain is, that *Milyas* and *Cabalia* were countries, (or parts of one country,) bordering on *Pisidia* and *Phrygia*, and classed as belonging to *Lycia*, and of course, that they must have formed the northern and inland part of it, towards *Phrygia*, *Pisidia*, and *Caria*.

Pliny, (lib. v. 27,) in his description of Lycia, speaks of Milyas and Cabalia, in a very general way. He says that MILYAS lies *beyond* PAMPHYLIA [1], in respect of LYCAONIA, (*i. e.* to the westward,) and CABALIA, in the *midland* part; which implies, of course, that it was situated in the remote inland part of LYCIA. And to this territory of Cabalia he assigns the three cities, *Oenoanda*, *Balbura*, and *Bubon*. In this Ptolemy agrees, with more detail, extending Milyas obliquely athwart the whole breadth of Lycia, between Pamphylia, Caria, and the territory of Cibyra, (the remote corner of Phrygia, to the SW.) At the same time, CABALIA is made to occupy the extreme angle of Lycia, between Milyas, to the SW.; Pamphylia and Cibyra, to the E. and N., separated from the former by Taurus, and from the latter by Cadmus, and it contains the three cities above named by Pliny; so that there is no disagreement between Pliny and Ptolemy.

Strabo assigns these three cities to CIBYRA, which might have been true, also, at one period, when

[1] The common boundaries of *Pisidia* and *Pamphylia* are not well discriminated, in ancient geography; but it appears probable that the former occupied generally the region of *Taurus*, and that the latter lay between *Taurus* and the Mediterranean Sea.

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Cibyra was a state possessing an army of 30,000 foot and 2000 horse, and might have commanded the country on *both sides* of Mount *Cadmus*, which was, however, the northern boundary of Milyas and Cabalia, according to Ptolemy. Strabo, in effect, (p. 666,) joins *Cabalia* to *Cibyra*, *Milyas* to *Pisidia*. The mountains of Solyma (he says) lay above *Phaselis*, and in those mountains stood *Termessus*, a *Pisidian* city, situated at a pass (a strong and famous one) that leads from *Pisidia* into *Milyas*. These notices furnish yet more particulars, at the same time that they do not disagree with the former authorities.

The mountains of *Solyma* are easily understood to be a portion of that branch of Taurus, which extends from the promontory of *Sacrum*, behind *Phaselis*, (the southern arm of *Taurus*, above-mentioned,) and of which the *Phaselian* mountains are a shoulder, or projection.

Termessus, although a *Pisidian* city, ought to have its position ascertained in this place, since it forms the connecting point of *Milyas* with *Pisidia* and *Pamphylia*.

We find, from Strabo, that it was situated in the mountains of *Solyma*, above *Phaselis*, at a pass between *Pisidia* and *Milyas*, (p. 666.) And the *Solymi* we learn, from the same authority, were the same with the former inhabitants of *Milyas*. But although we collect from all these notices, that *Termessus* stood in the range of mountains that extended from *Chelidoni* and *Phaselis*, northward to

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the borders of Phrygia[1], we are still left in doubt how far to the northward of Phaselis it was situated. Its parallel, according to Ptolemy, is 37° 15′, or about a degree north of Chelidoni; so that, according to the true parallel of Chelidoni, Termessus should be in 37° 7′[2]; and, in this position, under circumstances that accord in every respect with those of Termessus, ruins have been found in latter times.

The caravan road from Satalia to Smyrna, of which, that from the ancient *Attalia*, *Perge*, and *Phaselis* to *Phrygia*, made a part, is well known, by the observations of Paul Lucas, in the last century; but still more accurately by those of General Koehler and Captain Leake, during the present war, on their return from Egypt. Alexander, who came from Perge, in Pamphylia, fell into the same road; perhaps, the most practicable one, across the wide base of Taurus, in this quarter.

At the distance of 9 hours travelling, northward from Satalia, chiefly through a plain country, called the valley of Duden, the road leads to the foot of the southernmost range of Taurus. At the ascent is a strong pass, with very great remains of ancient masonry. The mountains (Taurus) here form a very deep curve; one part turning to the east, through Pamphylia and Pisidia; the other to the

[1] Probably at the junction of the Pamphylian Taurus with the other.

[2] The latitude of Cape Chelidoni is given, by a naval officer of note, at 36° 7′; and, by Galiano, at 36° 13′ 25″. We prefer the former. Its longitude, by the same officer, deduced from Rosetta, in Egypt, is about 30° 23′.

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south, towards Phaselis; and here we should look for the boundary between Pamphylia and Milyas, and, of course, for *Termessus;* the parallel, accordingly, almost exactly with Ptolemy's. The name of the modern town, nearest to the pass, is Bigikly.

At 9 hours farther towards Phrygia, (north-westward,) and in the very heart of Taurus, which consists here of several ridges, and has a base of 30 G. miles, are other great ruins, near a place on the road called Bujuklu, but the ruins themselves are at a place called Istenar, situated on a lofty eminence. It is possible that this may be the *Isionda* of Livy, (lib. xxxviii. c. 15,) the siege of which was raised by Manlius, when attacked by the people of *Termessus.* For this appears consistent with the history, if we trace his progress from *Cibyra,* and across Taurus.

It was said of Manlius, on this occasion, in the Roman senate, (Livy, xxxviii. c. 45.) that he had advanced to the *crest of Taurus;* and near to where the waters *took opposite directions:* and this would agree with Istenar. Alexander, as well as Manlius, went from this quarter to *Sagalassus;* situated at a few miles to the SE. of Isbarteh, or *Baris.*

Having thus approximated the place of Termessus, the point of connection between Pisidia and Milyas, we return to our proper subject.

Herodotus (Clio, 173.) reports as follows:—"The Lycians derive their origin from Crete. Sarpedon and his adherents having been expelled by his brother Minos, *came to that part of Asia which is called* Milyas. The country of the Lycians was

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formerly called Milyas; and the Milyans were anciently known by the name of *Solymi.* Here Sarpedon governed; his subjects retained the name they brought; and indeed they are now, by their neighbours, called *Termillians.* Lycus, the son of Pandion, being also driven from Athens, went to Sarpedon at *Termilæ*[1]; in process of time, the nation was after him called Lycians[2]."

Perhaps it may be sufficient to receive, as historical facts, as much of this narrative, only, as goes to the belief of colonies having been established in Lycia and Milyas, by leaders from *Crete* and *Athens;* and not to the general population of the country. It certainly appears that Herodotus believed that the *whole* country of Lycia was originally named Milyas, but was changed by the new colonists.

It is certain that this account from Herodotus does not agree with that above quoted from Arrian (page 56); that Milyas had originally been a part of Phrygia; but was added to Lycia, by Darius. But it appears to be most clearly established, that Milyas, (or Milyas and Cabalia, collectively) formed the interior part of that country, whose maritime part was

[1] Does this refer to *Termessus* and its territory?

[2] It is repeated (in Polym. 92) "The *Lycians* are descended from the *Cretans,* and were once called *Termilæ;* afterwards they took the name of *Lycians.*"

Mr. Beloe believes that the name of the Termilians is derived from the weapons for which the Cretans were famous: if so, the name would of course be introduced with them: and may have been the origin of *Milyas.*

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called Lycia. Lycus, perhaps, settled in the maritime part, which was natural to an Athenian.

Ptolemy gives a greater extent to Milyas than Strabo, or than M. D'Anville; although the latter appears to have extended it to the north of the lake of Burdoor, which seems to be out of all measure; since that lake lies to the north of *Cadmus* and *Taurus;* and the former, according to Ptolemy, was the extreme limit of Milyas. Strabo extends it to the territories of *Sinda, Apamia,* and *Sagalassus; Sinda* adjoined to *Cibyra,* according to Livy, (xxxviii. c. 15.); and these, collectively, occupied the tract bordering on the north of *Cadmus* and *Taurus* [1].

Cabalia.

We have seen that Pliny places *Cabalia* more inland than *Milyas;* or to the northward of it; Ptolemy, to the NE. of it, encroaching on *Pisidia* or *Pamphylia;* and Strabo places it contiguous to *Cibyra.* All three, therefore, do not essentially differ; and such must be taken for the Cabalia *of that day.*

[1] In Livy (lib. xxxviii. c. 39.) *Lycia* with *Caria,* &c. are assigned by the Romans to Rhodes; but *Milyas,* (as if a distinct country), with *Lydia,* &c. to Eumenes. Again, in Herodotus, (Thalia, 90.), the *Milyans* are classed, as if a distinct people, with the *Lycians, Carians,* and *Pamphylians,* in the first Satrapy. In the catalogue of the army (Polym. 77.) the *Milyæ* carried short spears, and some of them had *Lycian* bows.

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Herodotus speaks of the *Cabalian Mæonians*, (Polym. 77.), who were also called *Lysonians*. These are probably the *Lycaones* of Ptolemy; situated along the course of the *Lycus* River, (of *Cibyra* and of *Laodicæa ad Lycum)*; and may be taken either for the *Cibyrates* themselves, or for a province of that state. The *Lycus* is known to descend from the [north] side of Mount *Cadmus*, (Strabo, 578); and the vicinity of the Cabalians to this mountain, and consequently to *Lydia*, or *Mæonia*, may serve to explain the close connection between the *Cabalians* and *Mæonians*. Possibly the *Mæonians*, south of the Mæander, into which the *Lycus* flows, might be distinguished by the name of *Cabalian*, as those on the north of it, (*i. e.* in *Lydia)* are said to be LYDIANS, *formerly called* MÆONIANS: (Polym. 74.) And as *Cibyra* is not mentioned by Herodotus, as, perhaps, being at that time of no importance as a territory; it may be, that it was then possessed by those, called by him *Cabalian Mæonians*. For this tract was only separated from the *Mæonians*, at *Tmolus*, by the course of the *Mæander*. Where *Cadmus* ends, *Tmolus* begins, says Pliny, (lib. v. c. 29.)

In such like discussions of political geography, *anachronisms* will often be made; as the gradual formation of one state, and as gradual destruction of another, often leaves the delineator of such geography in doubt, or leads him into error. History alone can supply his defects.

It appears that M. D'Anville in his map of Asia Minor, made for M. Rollin's Ancient History, about

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1740, has placed *Cabalia* in the eastern quarter of CARIA, towards the head of the river *Calbis;* and *westward* of *Milyas;* but he has since placed it to the *east* of *Milyas*. This fluctuation of opinion was probably occasioned by the seeming contradictions in its history and geography.

Pisidia, Pamphylia, and Isauria.

CONCERNING these three adjoining provinces, much difference of opinion, if not confusion, has arisen amongst the ancient historians and geographers. This is owing to different causes. 1, Some considered PISIDIA itself only as a part of PAMPHYLIA. 2, Whether independent, or otherwise, the common boundary between them was ill defined. 3, The limits of PISIDIA, towards PHRYGIA, have varied considerably at different periods of ancient history. And 4, ISAURIA (by which is meant the original province of that name, between LYCAONIA and PISIDIA; and which was conquered by Servilius; and not *Cilicia Trachea*, to which the same name was given in later times) is by some reckoned a province of *Pisidia;* by others, a distinct country of itself.

The relative positions of these countries to each other are as follow:—

The course of the *Lycian* Taurus, or *southern arm* of that ridge, has been already stated (page 56) as the common boundary between *Lycia* and *Milyas* on the west; *Pamphylia* and *Pisidia* on the

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east; and the projection of Taurus to the sea, at *Phaselis*, forms the extreme boundary of *Pamphylia* to the SW. From that point, Pamphylia continues to skirt the coast of the Mediterranean to *Coracesium* (now Alaiah), situated on the open coast, and the reputed limit of *Cilicia Trachea*, afterwards *Isauria*, westwards. Strabo allows only 640 stades for the length of the sea-coast of *Pamphylia*, (page 667), from Mount *Climax* to *Coracesium*.

Pisidia borders on Pamphylia; lying directly inland, and parallel to it, in an ESE. and WNW. direction; the southern skirt of Taurus forming the *general* line of separation between them. And Isauria, still further inland, is circumstanced in respect of Pisidia, as this latter is in respect of Pamphylia; and is divided from it by the main ridge of Taurus. Thus the three countries, whether independent or otherwise, lie in three parallel lines from NW. to SE.; *Pisidia* having the greatest extent in point of length of the three; *Isauria*, the least. And beyond all is *Phrygia*[1].

The circumstances of these countries cannot be well understood without a particular reference to the course of Mount Taurus and its members; since *Pisidia* occupies the summits and base of this region as far as it goes; with the adjoining plains in certain parts to the NW.; and *Isauria* is *inclosed* by some of its subordinate ridges. The subject of Taurus, at large, is discussed in a separate chapter; and to

[1] This agrees with the general observation of Diodorus, lib. xviii. c. 1.

which we beg leave to refer, for general ideas, supplying in this place such particulars alone as more immediately respect the provinces in question.

In that chapter[1] it will appear that the principal summits of Mount Taurus, issuing from the *Milyan* upland, at the distance of 24 to 45 miles from the Pamphylian Gulf, extend in very irregular lines eastward, and nearly parallel to the coast of the Mediterranean, as far as Syria, forming a mountainous belt of more than 30 miles in breadth, and having between it and the sea, first PAMPHYLIA; and beyond it the TWO CILICIAS. That PISIDIA occupies that part of the mountainous belt opposite to PAMPHYLIA; and ISAURIA, the tract beyond the same belt, and opposite to PISIDIA; the three provinces ranging parallel to each other. That beyond ISAURIA, eastward, along the north side of Taurus, the space is occupied by the province of *Lycaonia*, now Koniyah; and, finally, that *Isauria* and *Lycaonia* are covered towards the interior (northward) by parallel ridges of a lower order, at 40 to 60 miles beyond the great chain of Taurus.

Such are the relative positions of these three provinces, which some have regarded as one country; reckoning *Pamphylia* as the maritime part, and *Pisidia*, including *Isauria*, as the inland part. It is certain, that whether forming one or three countries they cannot well be separated in the discussion: if regarded as one, they form a tolerably compact oval figure, (bating the head of the gulf of Satalia)

[1] Book V. of this series; Chapter I.

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of 100 miles from N. to S.; and 90 from E. to W.; and are bounded by the Mediterranean on the south; by *Lycia*, and *Phrygia Pacatiana* on the west; by the mountains of *Phrygia Paroreius*, and the territory of *Apamia Cibotus* on the north; and by *Lycaonia* and *Cilicia Trachea* on the east.

In the next place, it will be proper to enter into so much of the detail of the ancient geography of these provinces, as to shew that the ideas of the Greeks and Romans differed exceedingly, amongst themselves, in respect of the particular arrangement, extent, and position of them.

The ancients seem to have been agreed in the opinion that *Pamphylia* occupied the sea-coast from *Phaselis* to *Coracesium*; but the boundary between it and *Pisidia* appears not to have been decided. For instance, *Termessus* is said to be in *Pamphylia*, by Livy, (lib. xxxviii. c. 15), and also by Ptolemy: but Strabo places it in *Pisidia*, and Arrian calls it a *colony* of *Pisidia*.

Livy and Ptolemy arrange *Pamphylia* and *Pisidia* as one country under the name of *Pamphylia*. The former, who describes, in detail, the history of the Roman wars there, and who may be supposed to have studied its geography, includes *Pisidia*, if not *Isauria*, in *Pamphylia*. For he says that "part of *Pamphylia* lay on one side, and part on the other side of Taurus." (xxxviii. c. 39.)—(Now *Pisidia* is said, by Strabo, to occupy the summits of Taurus, between *Sagalassus* and *Homonada*; together with a number of cities, which he specifies, on both sides of Taurus, including even *Antiochia* of *Pisidia*, near

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Phrygia Paroreius.)—Livy then actually includes, in *Pamphylia*, the province described by Strabo as *Pisidia;* and appears to include *Isauria* also. At the same time he admitted the existence of a province under the name of *Pisidia;* for he repeatedly mentions it; and says that the people of *Sagalassus* are *Pisidians*. On the whole, therefore, one cannot doubt but that he regarded *Pisidia* as a province of *Pamphylia*.

Ptolemy, as we have observed, arranges *Pamphylia* and *Pisidia* together as one country; or rather makes *Pisidia* a province of *Pamphylia;* and subdivides it into *Pisidia proper*, and *Pisidia of Phrygia*. He has also *a province* of *Pamphylia;* besides which, the country at large contains the eastern part of *Cabalia*.

In the distribution of the parts of *Pamphylia*, at large, Ptolemy assigns to the *province* of that name the tract towards the sea, which includes *Olbia, Attalea*, and *Side*, on the coast; *Termessus, Selga, Aspendus, Perge*, &c. more inland. And *Pisidia* contained the inland parts, extending beyond Taurus, northward, and containing the cities of *Baris, Amblada, Lisinia, Cormasa, Antiochia* of *Pisidia, Apollonia*, &c. &c.

Moreover, his *Pisidia* extended to the neighbourhood of *Celænæ* and *Apamia Cibotus*. ISAURIA, which he places distinct from *Pisidia*, or *Pamphylia*, occupies its proper position in his system; it being to the N. of Taurus, and to the W. of *Lycaonia*. Thus Ptolemy's description of the provinces in question agrees with ancient history.

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Pliny is much too brief on the subject. It is only to be collected from him (lib. v. c. 27), that *Pamphylia* lies on the sea-coast, and contains the cities of *Side, Aspendus,* and *Perge;* that the *Melas* river was the ancient boundary between *Pamphylia* and *Cilicia Trachea;* and that *Phaselis* stood at the western extremity.

And with regard to *Pisidia,* that its capital was *Antiochia;* and that the other principal cities were *Sagalassus* and *Oroanda.* That it was shut in by *Lycaonia,* and had for neighbours the people of *Philomelium, Thymbrium, Pelta, Hierapolis,* &c. And, finally, that the state of *Homona,* or *Homonada,* formed of close and deep valleys, *within* Taurus, had the mountains of *Pisidia* lying above it.

From all this we may collect, that the *Pisidia* of Pliny extended along the north of *Pamphylia,* and of *Taurus,* from the district of *Sagalassus,* westward, to that of *Homonada,* eastward; the latter being on the common frontiers of *Lycaonia, Cilicia Trachea,* and *Pisidia;* and, according to Pliny, forming a small state shut up within the valleys of *Taurus.* The *Pisidia* of Pliny, therefore, agrees to that of Ptolemy; and will be found to agree also with that of Strabo.

Strabo (pp. 667, 668), clearly distinguishes *Pisidia* and *Pamphylia* as two distinct countries: that is, PAMPHYLIA, as a maritime country, extending from Lycia to Cilicia Trachea; in length, along the coast, 640 stades; and PISIDIA, (pp. 569, 570), occupying the summits of Taurus, (or rather the

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whole base of that region) from *Sagalassus* and *Termessus* to *Homonada;* and that it occupied certain tracts of land below Taurus on both sides. And besides the general extent given it by this description, he classes so many places belonging to it, as to prove that it has a great extent in point of breadth; for *Selga* appears to have been at a great distance to the south of the main ridge; and *Antiochia* of *Pisidia* is 30 to 35 miles to the northward of it.

But with respect to ISAURIA, Strabo is not so explicit as might have been wished; but the subject, perhaps, was not well known to him. He, no doubt, regards *Isauria* as a province, or a part of *Pisidia* at large; and mentions its two capitals, the old and the new. But then he speaks of the expedition of Servilius, which was sent to one of those cities, as a transaction connected with the *modern* or *maritime* ISAURIA; that is *Cilicia Trachea.* This may perhaps be explained, by the circumstance of Servilius being at the time proconsul of Cilicia; and the expedition being prepared and sent forth from *Corycus,* in that country, as a convenient point of outset. (Sallust, lib. ii.) But Strabo describes *Cilicia Trachea* under its proper name, and fixes its boundary westward at *Coracesium,* on the seacoast; and, therefore, seems to have had no idea of any other *Isauria* than that which lay inland.

The Isauria of Pliny includes both the original province of that name, lying north of Taurus, and also *Cilicia Trachea,* which had been added to the other; possibly from the date of the above men-

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tioned expedition of Servilius. About a century and half had elapsed between the time of Servilius and of Pliny; and great changes had probably taken place in the arrangement of boundaries of countries so lately acquired. More will be said concerning this subject under the head of *Cilicia*. In the mean time, the mention of *Isaura*[1] as one of its cities, and of *Lalassis* as another, shews by the situation of those cities, that *both* provinces, collectively, were intended by Pliny. In latter times, the name of *Isauria* seems to have become appropriate to Cilicia Trachea.

Ammianus Marcellinus wrote at so much later a period, that one can hardly allow his description to apply to *ancient* geography. He describes (lib. xiv.) *Isauria* as a *maritime* country, absolutely; and perhaps the *original* Isauria was not then known by that name; but merged into the larger province of *Pisidia*.

Cilicia and Lycaonia.

CILICIA[2] filled up the remainder of the space, in the line of provinces along the southern coast of Asia

[1] Hissar—Isauria.

[2] Pomponius Mela affords ground to suppose that *Lycia* and *Cilicia* were, in remote times, adjoining countries; that is, separated only by that lateral branch of Taurus whose termination forms the Chelidonian promontory. So that *Lycia* and *Cilicia* (or ΛΥΚΙΑΣ and ΚΙΛΙΚΙΑΣ), occupied the whole southern

Minor. And as the province of LYCAONIA occupies the vacant space between the projection of Cilicia, on the one hand, and of *Isauria* on the other, beyond Taurus, it will be convenient to include it in the same article. M. D'Anville regarded Lycaonia as a part of Phrygia; though we know not on what ground.

Cilicia was by the ancients divided into *Trachea*, or the rough; and *Campestris*, the plain or level part. Not that they were absolutely what the names import, but they were imposed, as in many other cases, with a view to establish a distinction. We are at least certain, that although *Cilicia Campestris* contains some extensive plains, yet that the principal part of it is hilly.

The *Cilicias* presented a long narrow tract of country, along the Mediterranean, between *Pamphylia* and *Syria*, 250 miles in length from west to east. On the north, it was separated by Mount Taurus from Lycaonia; on the NE. from Cappadocia; and on the east from Syria, by Mount Amanus. Its coast was deeply indented by bays, ports, and embouchures of rivers; and the island of Cyprus lay in front of it. The summits of the high ridge of

coast, from Caria, eastward; and might have been correlative names.

Cilicia was the fourth satrapy in Darius's arrangement; and paid a tribute of 500 talents of silver, besides 360 white horses: that is, one for each day of the *Persian* year. This shews that it must have been very fruitful and productive; for Phrygia, Paphlagonia, and Cappadocia, collectively, though so much more extensive, paid 360 talents only.

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Taurus are generally from 40 to 45 miles from the sea, in Cilicia Campestris; but in Trachea, its branches in some places project to the sea-coast; which doubtless occasioned the name.

Cilicia Trachea, afterwards, as we have seen, named the maritime *Isauria,* was separated from the *Campestris* by a lateral branch of Mount Taurus, which extended to the sea-coast, on the west of *Soli* and *Corycus. Seleucia* (surnamed *Trachea)* was its capital: and under the name of Selefkeh is still the reputed capital, although the residence of the governor is Mood, in a valley of Taurus, close to the ancient *Philadelphia.* The capital of the Campestris was Tarsus; a city of the highest antiquity and celebrity. Besides Tarsus, it had several other flourishing cities and colonies; most of them of Grecian foundation: but of which there remain at present only Adana and Messis, that are worthy of the name of cities. Sis is the modern capital. Xenophon extols Cilicia Campestris as a rich, beautiful, and well watered country. Modern travellers in general speak of it in much the same terms. Its summers are said to be very hot; for, although situated between 37 and 38 degrees of latitude, yet being shut up by the surrounding lofty mountains, from all winds but the south, and lying open to the sun, its rays exert their full power. Hence, the opulent inhabitants quit the valleys of Cilicia during the summer, and retire into those of Taurus, where they breathe a cool air.

In the geography of the present times, Cilicia at large answers to the Turkish province or government

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of Itsh-Ili; meaning the *interior* country. With a maritime people it would doubtless have been regarded as the *exterior* country; but it was named in reference to KARAMANIA, which was subject to the same *Seljukide* sovereign, resident at Kuniyah (or *Iconium*), previous to the Turks possessing Constantinople, and becoming a maritime power. The Seljukide thus regarded as *interior* whatsoever lay beyond Taurus, in respect of their residence.

ITSH-ILI (Cilicia at large) is subdivided into three sanjaks; of which, the western, *olim* Trachea, forms one, under the name of Itsh-Ili *proper;* and the eastern, or Campestris, two; Tarsus and Sis. In countries so marked by their physical geography, the divisions at all times will be nearly the same.

It becomes necessary here, as in the former case of *Pisidia* and *Pamphylia*, to refer the reader again to the description of Mount Taurus, and *Amanus*, the absolute boundaries of this country, to the north and east; as well as the line of separation between it and *Lycaonia*, on the one hand; *Syria* on the other. (Book v. c. 1.)

It appears that Taurus is in this part formed of several parallel ridges, (generally *three* in the parts that have been crossed; and Mr. Browne found the same number, between Aintab and Kisariah.) The most distinct account that we possess respecting it, in *Cilicia*, is in the line between Karaman and Selefkeh, from Professor Carlyle and Captain Leake. There, the ridge which bounds *Lycaonia*, or Kuniyah, on the south, is the loftiest; as is the case between Erekli and Tarsus: the waters of the

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Irmanak, one of the heads of the *Calicadnus;* and that of Bodando *(Podandus)* springing from the southern side of the Karaman, or Erekli ridge, and making their way southward, to the sea; whilst the heads of the *Halys* spring from the northern side of the same ridge.

Between this northern and the second ridge extends a beautiful valley, of very great length, and about 20 miles in breadth; across which the *Calicadnus* flows, and then forces a passage through the second, or southern ridge, in its way to the sea, near Selefkeh. This profound and extensive valley, or plain, between the parallel ridges of Taurus, contains within it, on the great road from Kuniyah to Selefkeh, the city of Mood [1]; and near it, lower down on the *Calicadnus*, the ruins of *Philadelphia*, a city classed as belonging to *Isauria*, (or *Cilicia Trachea)*, according to the division made under the lower empire.

The southern ridge just mentioned appears to be a continuation, westward, of the mountain of Ramadan Oglu; the middlemost of the three, crossed between Erekli and Tarsus. In the line of the road from Kuniyah to Selefkeh, this ridge is divided near the summit by a vast chasm, or pass, of a singular

[1] It may, with the greatest probability, be supposed that the ΜΩΔΩΗ in Hierocles (page 710, Wessel. edit.) is intended for *Mood;* in other words, that the Λ should have been a Δ: a mistake that has so often happened. Mood is the present residence of the Pacha of Itsh-Ili, or Cilicia. It is classed as belonging to *Isauria;* meaning *Cilicia Trachea.*

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kind [1]. It evidently agrees to the *Darb* of Edrisi, situated in the road from Tarsus to the Dardanelles, (p. 237); as well as the pass taken possession of by Alexander, for a readier and safer communication between *Iconium* and *Tarsus*. (See the marches of Alexander, in Cilicia, book v. chap. v.; and Arrian, lib. ii.)

A third ridge, still lower, occurs at the distance of 6 or 7 miles from the sea-coast (at *Celenderis*, now Ghelendari), and seems to be a continuation of that which Mr. Browne crossed, in his way to Tarsus, and within a few miles of that city; as well as that in which the castle of *Geulek* stands, at the descent into *Cilicia*. Thus there is but a narrow border of flat land below Mount Taurus in this quarter of *Cilicia Trachea:* and this may serve as a specimen of the nature of the country, and of the configuration of Taurus, within it.

Corycus (now Curco) was regarded as the most western town of *Cilicia Campestris:* so that the extent of the sea-coast was pretty equally divided between the two Cilicias; the river *Melas* being the extreme limit on the west; *Amanus* on the east.

It has been stated in the last article, that in Roman times, and that pretty late, the western or rough Cilicia, obtained the name of Isauria; and is so classed under the lower empire, whilst the *original Isauria* became an undistinguished part of *Pisidia*. It is not well known how *Cilicia Trachea*

[1] Professor Carlyle's MSS.

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came to change its name; some have thought that it was from the similarity of its nature to the original and proper Isauria, of which it may be reckoned an extension; or whether from actual conquests that had been made by the Isaurians; as the Kourds or *Carduchi* have extended themselves along the mountains connected with Taurus. We venture to hazard an opinion, that the change was effected in the time of Servilius; who, being pro-consul of Cilicia, carried an expedition thence into Isauria, and made a final conquest of it: and that conquest might naturally have been added to his former province, and an extension of the name and country taken place at the same time.

Pliny complains that geographers omitted *Isauria* in their maps; joining, says he, *Cilicia* (meaning *Campestris)* to *Pamphylia,* whilst *Isauria* intervenes: and he marks it too strongly to be mistaken, by saying that it extends to the sea-coast, full upon *Anemurium;* and shews that he *includes* the original Isauria, by naming its capital *Isaura,* as one of its cities [1].

Homona or *Homonada* was a considerable district, situated in the very bosom of Mount *Taurus,* consisting of a number of deep valleys and mountainous summits; and having, according to Pliny

[1] Ptolemy, however, though posterior to Pliny, confines *Isauria* to the original province, beyond Taurus. And Cilicia he divides into several districts: the *Campestris* he names *Cilicia Proper:* and the *Trachea* is divided into *Cilicia Aspera, Lelentis Aspera, Cetis, Citis,* and *Lalassus.* So that the new application of the name had not reached Ptolemy.

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(lib. v. cap. 27.) no less than forty-four fortified posts, besides the fortified town of *Homona*, the capital. He calls the *Homonades* a nation.

It is difficult to fix the position of this district, from the want of precision in the authorities. Pliny says that the geographers of his time had omitted it, through ignorance; but that it lay contiguous to the mountains of the *Pisidians (Taurus)*, which rose over *Homonada;* and was also contiguous to *Isauria*, i. e. *Cilicia Trachea*, (v. c. 27.): and Strabo places it between *Pisidia* and *Cilicia Trachea*, (p. 668.) Tacitus (Annals, lib. iii. c. 48.) reckons it to Cilicia, speaking in a general way. In the time of the lower empire it was classed as belonging to *Lycaonia*, whilst *Philadelphia* and *Mood* were placed in *Cilicia Trachea*. Ptolemy appears to have known nothing respecting it.

Since then, these two cities (*i. e.* Philadelphia and Mood) are placed in *Isauria* (the *New)*, and are situated immediately to the south of the great ridge of Taurus, one must conclude that this ridge formed the common boundary of the new *Isauria* and *Lycaonia;* and, in consequence, that *Homonada*, which, by the same authority, is placed in *Lycaonia*, should lie to the north of the high ridge of *Taurus*. And as *Homonada* joined to *Pisidia*, it must of course form the frontier province or district of *Lycaonia*, towards *Pisidia;* that is, to the SW. Therefore its position should be looked for a little to the east of south from Kuniyah, or *Iconium;* at the distance of 45 to 50 British miles; and between two of the high parallel ridges of Taurus. Possibly

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the district may have consisted of such a valley as that in which Mood is situated; and the fortified posts mentioned by Pliny, may have been placed on the summits of the surrounding mountains.

M. D'Anville had an idea that *Ermanak*, a castle formed out of the live rock, was *Homonada;* but the Turkish geographer places Ermanak 2 journeys to the southward of Laranda, or Karaman: a position utterly incompatible with the frontier of *Pisidia* and of *Lycaonia*, since it falls far within *Cilicia Trachea*, or the *New Isauria*. It is also proper to remark, that M. D'Anville himself places *Homonada* in *Cilicia Trachea*, on its NW. frontier towards *Pisidia*.

Cilicia Campestris.

The eastern Cilicia, or that of the plains, obtained this name, as we have remarked, in contradistinction to the *rough*, or *mountainous*, from its having many plains towards the sea; that of *Aleius* in particular. It would appear also, that Xenophon found a plain or wide valley most of the way from the pass at *Tyana* to *Tarsus*, since the words of his description are,—"From thence [the pass] we descended into a large and beautiful plain, well watered, and full of all sorts of trees and vines, and abounding in grain of different kinds; and surrounded with a strong and high ridge of hills, from sea to sea."

No description could be more true; for in fact,

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Taurus does recede in a semicircle of 80 miles in depth, from the sea-coast at *Mallos*, to *Tyana ;* and it approaches so near to the sea, on the west, that to the *view* it is completely shut up ; whilst on the east it is *actually* so, by the position of *Amanus*.

In early Mahomedan times it was named ARMEN, as being regarded as a continuation of *Armenia Minor*.

Corycus has been mentioned as the most westerly city of *Cilicia Campestris ;* and its south-eastern limit was at the Syrian and Cilician gates, a fortified pass at the side of the gulf of Issus : where the base of *Amanus* nearly closes on the sea : *Issus* being in *Cilicia, Alexandria* in *Syria*.

The passes of *Cilicia* and *Syria*, which gave occasion to so much military history, in ancient times, together with the roads that led to them, will be found discussed under the head of "*Cilician and Syrian Passes*," in Book V.

Cilicia Campestris was copiously watered by streams from Mount Taurus ; the principal of which were the *Pyramus*, the *Sarus*, and the *Cydnus ;* respectively known in modern times by the names of Jihan, Seihan [1], and Meribafa. The two former are considerable streams, before their quitting the defiles of Taurus ; and are said by Xenophon to be respectively 500 and 300 feet in breadth, where he

[1] The rivers *Oxus* and *Jaxartes*, which continued for ages to be the boundary of the Mahomedan world to the NE., as the *Pyramus* and *Sarus* to the NW., also obtained the names of Jihan and Seihan ; the Seihan, in both cases, being the most distant of the two ; or, in effect, the boundary.

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crossed them [1]; and the Cydnus 200. Lucas compares the Jihan to the Loire; and the Sarus to the Seine. Abulfeda compares Jihan with the Euphrates. As these rivers are subject to sudden and great swellings, from the rains and snows of Taurus, they contribute to the natural strength of the country.

Abulfeda has staggered his readers by setting forth that the Jihan and Seihan form a junction before they reach the sea; which is contrary to what the ancients have left on record, and no less to what the moderns have been accustomed to believe [2]. But we are not able either to *verify* or to *disprove* the assertion, from any notices furnished by modern travellers; for none have traced either of the rivers to the sea. Our belief most certainly is, that they enter the sea in separate streams. M. Otter, following Abulfeda, describes the conflux, but never saw it. On the other hand, Golius, who had resided at Aleppo, corrects this error of Abulfeda (p. 293); and it is possible he had previously enquired into the matter.

But it is remarkable that Arrian takes no notice of the *Sarus* (or Seihan) in the march of Alexander; and that Dionysius omits it in his description of the rivers that fall into the sea of Cilicia. However, Strabo, Ptolemy, and Livy [3], all either mention or allude to the *embouchure* of the *Sarus*.

[1] That is, the one a *stadium*, the other three *plethra*.

[2] See his *Prolegomena*, p. 168; and Syria, p. 153.

[3] Witness the mention of the *Sari Capita*, or head *lands* of the *Sarus*, in Livy, lib. xxxiii. c. 41, Ptolemy, &c. together with

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A fourth river of *Cilicia Campestris* is the *Lamus* (now Lamuzo), the river of *Soli*, or *Pompeiopolis*: and a fifth, which is very inconsiderable, discharged itself at *Anchialos*, a little to the westward of *Tarsus*. Both of these, as well as the *Cydnus*, are necessarily of small bulk, from the vicinity of the mountains in which they collect.

The sea-coast of Cilicia in general, in common with the whole southern coast of Asia Minor, is ill described in the maps, both as to form and distribution of the distances; owing to the want of surveys. Yet few coasts are more interesting in the view of ancient history.

Beginning from the west, *Corycus*, now Curco, is the first town of *Cilicia Campestris*. It was remarkable for its grottos or caves: and had the small island *Eleusa* (Strabo, p. 671) lying before it.

Soli, afterwards *Pompeiopolis*, is the next city, going eastward. The district here was named *Lamotis*, and had the river *Lamus* passing through it; as also a town of the same name on its banks, at a considerable distance above the sea: but at present the name, or at least that of Lamuzo, is applied to a town on the site of Soli.

Soli was the term of Alexander's progress westward, from Tarsus; and from whence he sent a detachment into the mountains, to clear the passes, leading from *Iconium* to *Tarsus*, by the south. It changed its name on occasion of Pompey's having

the known circumstance of the discharge of the *Pyramus*, or Jihan, at Mallo.

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established there the families of the subjugated pirates of Cilicia.

Anchialus lay between Soli and Tarsus. This city contained the tomb of Sardanapalus, and had been very extensive and populous.

Tarsus was situated at the distance of one march beyond Anchialus, and at a few miles above the embouchure of the river *Cydnus*, which formed a lake; a part of which, according to Strabo, formed its port, or *navale*, (p. 673.) Mr. Browne, who visited Tarsus within these few years, also bears testimony to its being a considerable way from the sea.

The *Cydnus*, or river of Tarsus, has been more celebrated than either of the two *greater* rivers of Cilicia; partly from its partaking of the fame of the city through which it passes, partly on the score of its being the scene of two well known historical events, the one respecting Alexander, the other Cleopatra; and perhaps too, from the freshness and purity of its waters. The Cilician Taurus, from whence it issues, making a sweep to the S. and SW. from the pass of Geulek, approaches within 12 miles of Tarsus, on the NW.: so that the *Cydnus*, now Meribafa, has a very short course from the mountains to Tarsus; and as these are commonly covered with snow, the *Cydnus* may derive its coldness from melted snow, especially during summer. Therefore, the coldness of the water, spoken of by the historians of Alexander, may be true, although neither of them advert to the causes; the melting of snow, and the vicinity of the mountains, which allows no time for

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the atmosphere to act on the water. Curtius indeed says, that the river is shaded by trees, or forests, that grow on its banks.

Amongst the cities of this province, *Tarsus* had the pre-eminence in ancient times. It must also be regarded as a foundation of very high antiquity; as the difference of opinion upon the subject, amongst ancient authors, and the fables concerning it, seem to prove. Besides, the natural advantages of its site, as a port, and frontier station towards Mount Taurus, render it probable that it has been occupied ever since mankind became numerous enough to form national establishments. Strabo and Arrian inform us that *Tarsus* and *Anchialus* were built by Sardanapalus: and in proof of it, they quote an inscription on the tomb, or cenotaph, of that prince, at Anchialus; which also says that they were built in one day; a fact that the reader will not readily give credit to.

Whensoever it was founded, or by whom, it may be believed that it afterwards became, in common with several other cities in Cilicia, a Grecian colony, or establishment. Strabo says that it was *founded* by the *Argives;* which may relate to a re-edification or improvement of the ancient city: and to which honour Haroun Raschid, at a later period, had perhaps an equal claim with the Argives.

The first distinct account of Tarsus, in history, is from Xenophon, who accompanied the younger Cyrus thither, about 400 years before our æra. He describes it as "a great and rich city, having the *Cydnus,* 200 feet in breadth, flowing through the

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midst of it." Strabo says the same of the Cydnus in his time: so that the plan of the city probably continued the same as in the time of Xenophon and of Alexander. But the ruins seen by Paul Lucas, in 1704, stood on the west side of the river only. He says, that after crossing the river Meribafa *(Cydnus)* over a fine bridge of stone, in his way from Adana, he came to the ruins of the ancient city, the circuit of whose walls he estimated at 4 French leagues. Although it is probable that he over-rated it, yet it must be concluded that its extent was very great, by the manner in which others speak of it.

As this *enceinte* stood beyond the Cydnus, it could not be the city mentioned by the Greek and Roman writers, since the river flowed through the midst of the city described by them; but it is probably the remains of that built by Haroun Raschid; that being the last foundation on record. He fortified Tarsus and Adana, as bulwarks against the lower empire [1]. In the long course of ages between the first foundation, and that of the caliph just mentioned, it may be supposed that it has several times been either destroyed, or partly ruined, and again re-established. Curtius speaks of ancient monuments in this neighbourhood, that were celebrated by the poets; but which were fallen to ruin before the date of Alexander's expedition.

Lucas says that they continue to the present time to carry away the materials of the ancient walls (which were of stone) to construct other buildings;

[1] Jacutus in Golius, page 295.

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and that the present city, or rather town, occupies but a small portion of the ancient site.

Lucas also describes the remains of a large citadel on a scarped rock, 3 or 4 leagues to the SW. or SSW. of Tarsus. The popular idea is, that it was the habitation and strong hold of giants; perhaps because the face of the rock is naturally formed into *steps*, or *retreats*, of 30 to 40 feet high each. Lucas seems to have been the first European traveller that has described this citadel; but the Oriental geographers speak of it, and call it a place guarded by genii.

Tarsus was so distinguished a school of letters and philosophy, as to be compared, by Strabo, with those of Athens and Alexandria. He also speaks very fully concerning the place, p. 673, to which we shall beg leave to refer.

The emperor Julian directed that his body should be buried near Tarsus; and it was accordingly deposited at the ascent of Taurus, in the road towards *Ancyra*. The caliph Al Mamoun was also buried at this place, having died at Bodando *(Podandus)*, about 40 Roman miles on the same road [1].

[1] Sir Harford Jones saw, at the distance of about 4 miles from Tarsus, on the great road towards the passage of Taurus, a splendid arch of Roman architecture. It was situated at the first ascent of the roots of Taurus, as the sepulchre of Julian was said to be placed. He also traced a portion of the ancient Roman causeway or road, at and near the same place.

Ibn Haukel, who wrote in the tenth century, when Tarsus was subject to the Emperor of Constantinople, says, " It is a considerable town, with a double wall of stone. They say, that in Tarsus there are above 1000 horsemen; and in all the chief

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Adana, or Adena, is at present the most considerable city of Cilicia. It is situated at the distance of a short day's journey to the eastward of Tarsus, on the western bank of the Seihan *(Sarus)*, and about 15 miles from the sea, in which interval is situated the plain, anciently the *Campus Aleius*, and now *Merdj-ad-dibage*, or the beautiful meadows, through which Alexander marched, in his way from Tarsus to Issus. Pliny places this plain between *Tarsus* and *Mopsus* (the present Messis), which is very exact [1]. In 1704 there was a fine stone bridge of fifteen arches over the Adana river.

The air of Adana is said to be unwholesome, during the summer heats, and during which time the opulent inhabitants retire to the mountain above the pass of Geulek, about two journeys distant.

The foundation of the present city is ascribed to Haroun Raschid; but a city of this name (though unnoticed by Strabo) existed during the time of Pompey, who sent thither a part of the pirates, from Cilicia Trachea. (Appian, Mith. War, xxiii.) Xenophon speaks of no city, either at the *Sarus*, or the *Pyramus* river, although *Mopsuhestia* (now Messis) is known to have been founded by Mopsus, at a much earlier period. Ptolemy erroneously places it at the *Pyramus* river. This is one of the places whose name has undergone no alteration.

Messis, or Messisa, stands at a small day's journey to the eastward of Adana, and may be reckoned

Mahomedan cities there are *inns*, or public places, appointed for the people of this town." (Page 46.)

[1] More is said concerning this plain in Book V. chap. 5.

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the second city of *modern* Cilicia. It is situated on the western bank of the Jihan *(Pyramus)*, over which there was, in 1704, a beautiful stone bridge of nine arches; and although that over the Seihan had fifteen, yet the river that passed under it was little more than half the bulk of the Jihan. In the time of Abulfeda, this city consisted of two parts, divided by the river; the one properly Messis; the other Kafarnaba. As there is now only one town, and that named Messis, and on the west side of the river, it may be concluded that the original Messis, or Messisa, stood on that side; Kafarnaba on the east. The remains of columns, and other antique marbles, are yet seen, and may be supposed to mark the position of a magnificent city, such as *Mopsuhestia* was, or perhaps its temple.

The country around is beautiful, being made up of small hills and valleys, which give rise to a number of water courses. Messis itself stands on an eminence, commanding a distant view of the *Sinus Issicus*, at the distance of about 15 miles to the SE. The cupola of the principal mosque was seen from the sea. Travellers mention a ridge of hills, named Jebel-al-Nour, close to Messis, and extending to the neighbourhood of the sea-coast, near Mallo, (the ancient *Mallos,)* situated near the mouth of the Jihan. And it appears that here the flat country (the *Campus Aleius*) ends, from the west, and a succession of low hills intervene, between it and the head of the gulf of *Issus* (or Scanderoone).

Messis is unquestionably the city spoken of by Strabo, (p. 675, 676,) as the *Mopsuhestia* of his

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time, and by Cicero also, who says that it stood at the *Pyramus* river. It was founded by *Mopsos* of *Argos*. Pliny notices it under the name of *Mopsos*; Ptolemy and Procopius, under that of *Mopsuestia*; in the Jerusalem Itinerary, it is *Mansista*; and, in the Theodosian Tables, *Mompsista*[1]; and it is now Messis or Messisa. As it stands in the Itinerary at 18 MP. from Adana, there can be no mistake in referring Mansista to Messis, which places are 18 miles asunder, according to the modern travellers.

Mallo is situated near the point of the same name, forming the north side of the entrance of the *Sinus Issicus*. The town existed in the time of Edrisi, and the point is well known to seamen. Arsous, the ancient *Rhossus*, forms the opposite side of the entrance. The form of this gulf was better known to Ptolemy than to M. D'Anville, who has placed *Issus* on the *west*, instead of the *east* side of the gulf.

Strabo says (p. 675) "Near the river *Pyramus* is *Mallos*, situated on an eminence, and built by Amphilochus[2]. Beyond *Mallos* is the small city of *Ægæas*, with a port[3]. Farther on, at some distance from the latter, is *Issus*, a small town, with a station, and the river *Pinarus*. There Alexander and Darius fought." Here *Issus* and *Ægæas* are *both* mentioned and clearly discriminated, although

[1] Perhaps, by a mistake, in copying the letters, as in Mood. See p. 79.

[2] Alexander, whilst at *Mallos*, offered sacrifice to *Amphilochus*. Arrian, lib. ii. The inhabitants were a colony of Argives.

[3] Abulfeda speaks of this port and town. (Syria, p. 132.)

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some geographers have confounded them together. More light will be thrown on the position of *Issus*, when the marches of Cyrus and Alexander are discussed.

M. Niebuhr places Aiasse, or Ayas, on the NW. side of the gulf of Issus, at a considerable distance to the eastward of the mouth of the Jihan; and although it does not appear that he visited it, yet he must have had it in view, from the opposite side of the gulf, and thereby have been enabled to place it; and the position he gives it accords with the report of the Oriental geographers. Again, at 14 or 15 miles to the eastward of Aiasse, (the head of the gulf intervening, which forms a deep bay,) he places Oseler, answering unquestionably to *Issus* of the ancients. On a reference to the writings of the ancient geographers, we shall find that Aiasse is the Ægæas of Strabo and of Ptolemy, as well as of the Antonine Itinerary and Theodosian Tables, though corruptly written *Arege* in the latter. But it is not mentioned by any of the historians of Alexander, although he, doubtless, passed through it.

By the aid of the distances given by the ancient geographers and itineraries, the positions of *Mallos* and *Ægæas* are satisfactorily placed. The latter occurs in the Antonine Itinerary alone, because the Jerusalem gives the direct road from Tarsus to Issus, leaving *Ægæas* to the south.

Catabolo and *Catavolumis* of the Itineraries is the *Castabella* of Alexander, situated at the very head of the gulf of Issus; and, by the Theodosian Tables, 5 MP. short of Issus. There are very suffi-

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cient remains to mark the position of *Castabella*, now called *Demirkapi*, or the Iron Gate, from a gate of the town still remaining.

From *Castabella*, the road coasted the shore of the gulf, southward, to *Myriandrus* and *Alexandria*, through the narrow tract, usually called the *Straits of Issus*, it being shut up, on the land side, by the near approach of the foot of *Mount Amanus*. And this ground, rendered so highly important in ancient history, by the warfare of Alexander with Darius, and the march of the younger Cyrus, is given in detail, under a separate head, by reason of the length of the discussion. (See Book V.)

Epiphania was a fortified post of consequence, lying somewhat inland from Issus, and midway between *Alexandria* and *Anazarba;* that is, 30 MP. from each. Anazarba was a day's journey to the NE. of *Mopsuhestia*, and on the river Jihan. This position of Epiphania accords with Cicero's marches and counter-marches, between Epiphania, Amanus, and Alexander's *altars*, (which were then in existence,) on the field denominated from Issus, but which were really at the river *Pinarus*, a few miles to the southward of that city. By the name, one concludes that *Epiphania* was placed in a conspicuous situation, and perhaps on a detached hill, but it cannot be recognised in modern geography. M. D'Anville refers it to Serfandakar, a hill fort, described in Abulfeda and Hajy Kalifa; but this place appears to be too remote from Alexandria, the distance given being 30 MP., and Serfandakar appears to be no less than 47 from it.

That retired quarter of Cilicia, inclosed on three sides by Taurus, now properly named Sis, was anciently named *Characene*, and still, by the Oriental geographers, Kars. *Flavias* appears to have been the ancient capital, and M. D'Anville refers this to the town of Sis, with great probability. The numbers are so much corrupted in the Antonine Itinerary, (p. 212,) between *Cucusus* and *Anazarba*, that *Flavias* and *Prætorium* cannot be placed on their authority.

The great decline of the Turkish government has let loose, amongst other rebellious subjects, the mountaineers of Mount Lokham, or *Amanus*, bordering on the gulf of Issus. For 30 years past, nothing less than an army has been able to pass without permission of the chiefs of the hilly districts, between Antakiya and Anazarba. Mr. Baldwin was, by special favour, allowed to pass, in 1780, but passengers, in general, then embarked at the point of Mallo, or at Tarsus, for the port of Antakiya; and even the tribute to the Sublime Port, though totally contrary to existing regulations, which wisely forbid the hazarding of the public money on the sea, was embarked, as incurring a less degree of risk. Matters growing still worse, passengers have since embarked at Ghelendary *(Celenderis)*, and even at Caraduar *(Charadrus)*, which is more than 50 leagues to the westward of the Syrian port.

This naturally brings to mind the state of things, in the same quarter, when Cicero (then pro-consul of Cilicia) was compelled to attack the *Amanenses*, and in consequence destroyed their towns and strong

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holds on the mountains [1]. Some account of this warfare will be given in the sequel, as it serves to illustrate some points of ancient geography.

Lycaonia.

LYCAONIA filled the space between PISIDIA, on the west; CILICIA, on the south; PHRYGIA and CAPPADOCIA, on the north; and CATAONIA, a province of the latter, on the east. It filled a kind of recess, formed by the course of Taurus, which makes *a deep bend* to the south, between *Isauria* and *Cataonia.*

Strabo fixes the western boundary of Lycaonia at *Tyriæum;* the north-eastern at *Coropassus,* (p. 663.) We also learn from Hierocles, that *Baratha* (Bour) was included in Lycaonia, and may be taken for its eastern frontier, since *Tyana,* which lay beyond it, belonged to CAPPADOCIA [2]. Xenophon,

[1] Similar circumstances took place in Bengal, a great many years after the establishment of the British power; there a mountainous tract closes on the Ganges, for a very considerable distance. The mountaineers interrupted the regular posts, the dispatches, and, at last, small military escorts, and this was not rectified until government had recourse to the measure of reducing the whole tract to obedience.

It is remarkable that Cicero found in the mountains of *Amanus,* close to *Issus,* a tribe named *Tibureni;* and Xenophon, one of the same name, on the coast of the Black Sea, on the opposite side of Asia Minor.

[2] In Ptolemy, *Baratha* is also included in Lycaonia.

however, appears to reckon the commencement of Cappadocia, at the place where Menon separated, to go by the shortest route to Tarsus, whilst Cyrus went round by *Tyana*. Though we ought not, perhaps, to take it too literally, when he says that they went five days through Lycaonia, and then four more, through Cappadocia, to Tyana. It appears most probable, by the physical geography of the country, that Lycaonia extended to *Baratha*.

The exact northern boundary of Lycaonia is not pointed out, but as Strabo's description of the Lycaonian hills (p. 568,) evidently agrees to the range of *Fudal-Baba*, we may conclude that this range was included in it; together with the towns of *Petra*, *Sabatra*, &c.[1]

The *Tatta Palus*, or Great Salt Lake, (now Kodjahissar,) is said by Strabo (p. 568) to belong to the *Greater Phrygia*; and, at the same time, he says that it formed a part of the southern border of *Galatia*, and was adjacent [on the eastward] to *Morimena*, the frontier province of *Cappadocia*. He says, moreover, that the country adjacent to the lake, and extending to *Taurus*, (that is, to the SW. and S., of course,) bordered also on *Galatia*, and formed a part of the kingdom made up [by Antony] for Amyntas. And hence we must conclude, of

[1] Hajy Kalifa informs us that there are great numbers of wild sheep on the mountains of Fudal-Baba, which answers to Strabo's *Lycaonum Colles*, and which, he says, are cold and bare, (p. 568.) But he also informs us that Amyntas kept 300 flocks of sheep, in the quarter of *Garsabora (Garsaura)*, which borders on the before-mentioned hills.

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course, that the tract in question, between the lake and the mountains, (the Lycaonian hills before-mentioned,) made a part of Phrygia, as the lake itself did, since the above tract was neither a part of *Galatia* or of *Lycaonia;* and *Cappadocia*, we are told, began at [the eastward of] the lake. Consequently, a portion of *Phrygia* intervenes between the south border of *Galatia*, the lake *Tatta*, and the *Lycaonian hills*. And thus M. D'Anville has described it generally, but has, in our idea, extended Phrygia too far to the east, and even to the *Halys*.

It is proper to explain, in this place, what is meant by *Taurus*, in the above notice from Strabo. The *Fudal-Baba* mountains, which are Strabo's *Lycaonum Colles*, are the mountains intended by Taurus. They are the first range of hills that present themselves towards the plains of Galatia, Phrygia, and the *Tatta Palus*, and no others could be meant. Strabo has indeed confounded together two names for the same thing. But they are actually one of the parallel ridges belonging to the region of Taurus, and which, in this case, are recognised by Strabo for the real Taurus.

Pliny regards Lycaonia as bordering on Galatia, (lib. v. c. 27.) Originally it was said to have been a part of Phrygia, as the greater part of Galatia is known to have been, but it seems to be doubtful. It will appear by the map, that, in respect of the physical geography of *Lycaonia*, it is, like *Isauria*, included in a vast bason, formed by Taurus and its branches. Although sufficiently elevated to turn the

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courses of some of the waters that rise within it, (as the *Halys*,) towards the Black Sea, yet great inundations are very often formed on its plains, in the neighbourhood of Iconium and Erekli.

It will appear, hereafter, that Xenophon, with the younger Cyrus, marched through the entire length of Lycaonia, in their way from *Tyriæum* to *Tyana*.

The capital of *Lycaonia* was *Iconium*, now Kuniyah. It appears so obviously that these names have a close connection with each other, as well in modern as in ancient times, that one cannot well doubt it. Xenophon calls *Iconium* the *last* city of *Phrygia*. Strabo (p. 663) extends Lycaonia 30 miles westward from Iconium; *Tyriæum* being then the boundary; so that the case probably was, that *Lycaonia* was classed by Xenophon as a *province* of *Phrygia*. The modern province of Kuniyah comprises almost exactly the ancient *Lycaonia*.

Iconium was long the capital of the Seljukide princes, and there remains at present evident proofs of its magnificence during that period; for its ancient fame was not so great, although mentioned by St. Paul. There were several other cities of some note; of these, *Laranda*, at the northern foot of the great Taurus, is still known by that name, although more commonly by the name of Karaman.

Laodicea Combusta is now Jorgan Ladik, a village, with great remains of ancient buildings. *Baratha*, the present Bour; *Lystra*, not known, unless the present Ilesera be it: but there was also a city of *Ilesera*. The present Erekli has long been

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taken for *Archelais Colonia,* but this place was at least 50 miles to the northward of Erekli, and in the province of *Garsaura,* a part of *Cappadocia,* and totally out of the question, in respect of *Lycaonia.* There were several other towns of lesser note.

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CHAPTER V.

BITHYNIA, PAPHLAGONIA, AND PONTUS.

Bithynia.

BITHYNIA lies next to MYSIA, going eastward from the quarter of the *Hellespont*. It begins at the mouth of the *Rhyndacus* river, in the *Propontis*, and ends on the coast of the Euxine, at that of the *Parthenius*, now Partin or Bartin river [1]. So that it extends in length more than 200 miles along the Propontis and Euxine, but is narrow in proportion, being only from 70 to 90 in breadth.

In general position, it lies to the east of Constantinople, and is separated from it only by the canal of the *Bosphorus*. It answers to the Turkish sanjaks of Kodja-Ili and Boli, along the coast, with the northern part of Khodavendkaur, inland. On the west, it has MYSIA; *Phrygia Epictetus* and GALATIA, on the south; PAPHLAGONIA, on the east; the Euxine and Propontis, on the north. It is shut up from Phrygia and Galatia by the continuation of the

[1] Pliny terminates Bithynia at the river *Billæus*, a few miles short of the *Parthenius*. But other authors take the latter for the boundary; Arrian, in his Periplus, more particularly.

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mountain of *Olympus* (Keshish-Dag [1]), which, under the modern names of Ala, Koos, &c., extends itself through the northern part of Asia Minor. Livy applies to it the name of Olympus, at the distance of more than 150 miles from the mountain properly so called, under which *Prusa* (Brusa) is situated, and which is in full view from Constantinople. Some intelligent modern travellers have done the same; and, in effect, it may be said that Olympus pervades the *north* of Asia Minor, as Taurus does the south.

Many rivers flow from this ridge of mountains, which constitutes the border of the upper levels, into the Euxine and Propontis; but the only river from the high level that crosses Bithynia is the *Sangarius*, whose course has been generally described in Vol. i. p. 353, and of which more will be said, under the heads of Phrygia and Galatia, in which countries it collects, from numerous sources, and widely diffused, from *Ancyra* to *Cotyæum*. Its course across Bithynia does not exceed 70 miles. It is then become a large river, being estimated at 600 feet in breadth, by Mr. Charles Vaughan. Within this space it has two bridges; one at the present *Yeywa*, taken for the *Pons Sangarii*, at *Protomacra;* the other, lower down, in the road from Constantinople to *Amasia*, as the former is in that leading to *Ancyra* (Anguri) and Tarsus.

Of the rivers of the lower level, the *Rhyndacus*, as forming the western boundary of Bithynia, at its

[1] This term is applied to the loftier part of Olympus, opposite to Brusa.

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mouth, may be reckoned the first. It rises in Mount *Temnus*, on the borders of Phrygia, and, after issuing from the lake of *Apollonia*, receives a number of streams from Mysia, near *Miletopolis* (Mahalitch), and falls into the Propontis, opposite the island of *Besbicus*, now Kalo Limno. The second river is the Nilofer (or *Dascylium*), springing from the skirts of High Olympus, passing by Brusa *(Prusa ad Olympum)*, and falling into the sea at Diaskelli (ancient *Dascylium*), a very few miles from the former. A third is the *Ascanias*, a very small stream, the outlet of the lake of the same name; now the lake of Isnik *(Nicæa)*. The whole course of this stream or discharge is only about 6 or 7 miles; so near does the head of the *Cianus Sinus*, or Moudania, approach the lake *Ascanias*, or *Nicæa*. A fourth is the small river Kira, which falls into the head of the *Astacenus Sinus*, now denominated from *Nicomedia*, or Is-Nikmid. This appears to be the stream into which the younger Pliny proposed to convey a canal from the lake Sabanja. (See Pliny's Letters to the Emperor Trajan, on this subject.) A still more magnificent and useful plan was suggested by a Turkish engineer, in 1490. He proposed to connect, by two canals, the river Sangarius with the head of the gulf of Nicomedia. A very short canal was first to connect the Sangarius with a small river, Saridare, that runs into the lake, and then a longer canal was to join the lake to the gulf, about Nicomedia. The ultimate design of this work was to bring the timber, masts, pitch, and tar, from the vast forest of Agatch Degniz, (the Sea of Trees, literally,)

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by inland water carriage, to the docks at Constantinople and Nicomedia; few of the rafts sent into the Euxine ever arriving in the Propontis. The plan was defeated, through the intrigues of the persons who profited by the land carriage [1]. A fifth river is the *Gallus*, from *Olympena*, forming a branch of the Sangarius. (Pliny, lib. v. c. 32.) Sixth; the *Hippius*, now Lippo, and also Malan. It forms a lake at Uskoob, taken for *Prusa ad Hypium*, and falls into the Euxine, on the E. of the Sangarius. Passing by the smaller streams, between the Bosphorus and *Heraclea* of *Pontus* [2]: a seventh is the *Billæus*, the largest of any, save the *Parthenius*, of those that have their origin in the lower level. The *Billæus*, now Falios, gains the sea at *Tium*, and has its sources in that part of Olympus, opposite to *Gordium*, the ancient capital of *Phrygia*. Bol *(olim Hadrianopolis)* is situated near its source, *Claudiopolis*, or *Bithynium*, lower down.

[1] The levels were taken between the different points, in both cases, and the agreement is remarkable: for Pliny reports that the difference of the levels, between the lake of Sabanja and the gulf of Nicomedia, was 40 cubits, or perhaps about 60 feet, and the Turkish account is 30 *Ziras;* taken also at 60 feet; and between the Sackariah river and the lake was 35 feet (17½ Zira). The Turkish engineer did not intend to bring the canal, in the first instance, into the river Kira, as Pliny did.

[2] The smaller streams that discharge themselves into the south side of the Euxine are very numerous, and are noted in the observations on the Periplus of Arrian. The space is so narrow between the mountains and the sea, that these streams have not room to collect into rivers; 20 to 30 miles being the usual stint.

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The *Parthenius*, although the boundary of Bithynia, is rather a Paphlagonian river, since its course is entirely from the south and east, whilst Bithynia lies to the west of its course.

The *Billæus* and *Parthenius* fall into the sea within 100 stadia of each other. The latter is the term of our present enquiry; and it is the lower part of its course only that forms the boundary of Bithynia; in bulk it appears to be next to the Sangarius.

Bithynia has five beautiful lakes; two of them very extensive; besides several small ones. Amongst the larger are those of *Apollonia* and *Ascanias (Nicæa)*; those of Sabanja [1], *Jenishehr*, and Ifnanli *(olim Hypius)*, are in the next degree; and those of Diaskalli, *(Dascylium)*, Aksou, and Shaga, very small.

1. That of *Apollonia*, now Abolionț, and sometimes called Oulubad, from a town close to it. This is formed by the waters of the *Rhyndacus* in a bason bordered by Mount *Olympus*, the hills of Edrini *(Hadriani)* and of Philadar. It is 15 miles in length, and 6 at its greatest breadth; and contains several small islands; in one of which are the remains of *Apollonia*. Neither the exact place of the fountains of the Rhyndacus, or the particulars of its course are known to us; but it appertains to Bithynia. (Strabo, 575.) All that is known from the Turkish geographer is, that it rises in the dis-

[1] M. D'Anville names this place *Sophon*, from the Byzantine writers: but *Lateas* in the Theod. Tables agrees to it.

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trict of Azan, *(Azani)* about 40 miles inland from Mahalitch *(Miletopolis)* to the south-east. Issuing from the lake, it passes first by Oulubad, or Libad, (anciently *Lopadium)*, and then by *Miletopolis;* and receiving other rivers from the quarter of *Mysia* and Mount *Temnus*, it falls into the Propontis, as already described in Vol. i. page 366.

Brusa *(Prusa ad Olympum)* stands at 14 miles to the eastward of this lake, on a lower shelf of Olympus, fronting the north, in a most commanding situation, having a view over the gulf of Moudania, *(Cianus)*, and a part of the Propontis. This is at present the most flourishing city of Asia Minor. Before it is a beautiful and extensive plain, watered by the branches of the Nilofer, which almost surround the city. Brusa was for a long time the seat of the Turkish government in Asia; and here several of its sultans lie buried. The highest summit of Olympus is about 7 or 8 miles to the SE. of it. The Nilofer near its mouth, at Diaskeli, forms a very small lake, answering to that of *Dascylium.*

2. The lake *Ascanias*, now of Is-Nik, or *Nicæa.* This is one of the most magnificent lakes that is any where to be met with[1]. It lies in a complete bason; for even the river by which it discharges into the head of the gulf of Moudania, in length about 7

[1] It is not from the great extent of a lake that its picturesque beauties are to be calculated. It must be contained within such dimensions, as that the eye may at once command such a portion of it, as to be satisfied *that it is a lake;* otherwise it loses the character of such, and might as well be a bay of the ocean. The rest depends on the nature of the scenery.

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miles, is effected by a rupture of the mountain, like that at *Tempe* [1]. The clear expanse of water of the lake is 21 miles in length from east to west; with a general breadth of 6 miles. The surrounding mountains are of a moderate height, and remarkably well wooded; they sometimes approach close, and, at other times, recede from, the margin of the lake, forming deep recesses or bays, so as to form a pleasing variety. At the east end, washed by the surge of the lake, stands *Nicæa*, once a famous and magnificent city, the *enceinte* of whose walls, with their gates, still remain, with some ruins of public buildings within; but the town is reduced to a village. Amongst the ruins, Mr. Hammer, in 1804, tried in vain to satisfy himself, which was the identical church in which the famous Council was held [2]. There are many villages round the lake; in particular that of Bazarkoi, the silk mart, situated at the opposite end to *Nicæa*. A plan of the city of Nicæa will be found in Dr. Pococke.

3. The lake of Jenishehr, a small city, about 12 miles to the southward of *Nicæa*. Pococke visited

[1] M. D'Anville, and others of the modern writers, thought that this lake had no discharge. This is even the idea of Kauffer so late as 1776. But Ptolemy was right in *this*, as well as many other particulars, in which the moderns have ventured to differ from him. It appears that the man who resided at Alexandria in Egypt, knew more respecting the neighbourhood of the *Propontis* than the man who surveyed it.

[2] From a survey of the ruins of the churches, Mr. Hammer could not reconcile the fact of such a number of persons finding room to assemble in any one of them.

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this lake, and reports that it came close up to the town, but was to a great extent shallow and full of reeds. When last seen, at the distance of 50 years, or more, from the date of the former visit, it was not within 4 miles of the town: so fast do such lakes fill up, when, as in the present case, a stream is continually bringing fresh supplies of mud into it. The remaining part is between 3 and 4 miles in extent.

All the just mentioned lakes, as well as a small one named Aksou, between Brusa and Nicæa, are in view from the summit of Olympus.

4. Sabanja Lake. This is situated at the distance of about 15 miles from the head of the gulf of *Nicomedia,* and little more than 2 from the river *Sangarius,* or Sackariah. This lake is more than 8 miles in length, and of an oval form. It is said to have a discharge to the Sangarius, at a point near the sea, which is 16 or 17 miles distant. It has been mentioned, in page 104, that a canal was projected from the lake to the *Sangarius,* on the one hand, and to the gulf of Nicomedia on the other. The distance to the latter, 15 miles, is chiefly through a low valley; in which, it is said, by Pliny, there were traces of an attempt to dig a canal existing in his time. Such a plan must have been very obvious at all times.

5. The lake Ifnanli *(olim Hypius).* This is situated at no great distance to the east of the Sangarius; and is formed by the river *Hipyus,* now Lippo, or Malan, about 9 miles from the place of its discharge into the Euxine, where stands the town of

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Uskoob, or Iskûbi, taken for *Prusa ad Hypium.* This lake is rather smaller than that of Sabanja.

On the side of the *Propontis,* or sea of Marmora, Bithynia is deeply penetrated by two remarkable and well known gulfs; those of *Astacenus,* or *Nicomedia,* and *Cianus,* now Moudania. At the head of the former is *Nicomedia,* or Is-nikmid. *Libyssa,* now Ghebissa, the residence and burial place of the great Hannibal, stands near the entrance on the north; *Pronectus,* represented by Karamoosal, on the opposite side; and between them, the gulf being reduced to a narrow strait, is a ferry, by which more than 20 miles of ground are saved between Constantinople and Nicæa, which would be lost by rounding the gulf at Nicomedia. Accordingly, we find an indication of this road, in ancient times, by the position of *Pronectus* (in the Theod. Tables) and its distance from Nicæa. The modern towns situated at the opposite sides of the passage are Dil and Hersek.

Nicomedia, so long the capital of this quarter, whether under regal or prefectural government [1], occupies a most imperial situation, both in respect of the scenery about it, and of political and commercial

[1] *Nicomedia* had been the residence of the kings of *Bithynia;* and was named from Nicomedes its founder. But a city named *Olbia,* and another *Astacus,* (from whence the name of the gulf) had previously existed in that neighbourhood.

Nicomedia was also the residence of Pliny the younger, who was prefect of *Bithynia;* and the place of birth of the celebrated historian, Arrian.

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advantages, were it subject to a good government, and the inland navigation to the Sangarius and lake of Sabanja, spoken of in page 104, completed.

The shores of this gulf, and of the *Propontis* into which it opens, to Constantinople, were thickly set with towns and villages, of which many remain at this day.

The gulf of Moudania *(Cianus)* has its modern name from Moudania, the port of Brusa, situated near the entrance, and which penetrated to *Myrlea* or *Apamia*. *Cius*, which anciently gave name to it, is now Ghio and Gemlek ; situated at the extremity of the gulf; and which does not penetrate more than half the distance formerly assigned to it. It has been already stated, that the lake of Nicæa discharges into the head of this gulf, and the opening is at Ghio, whence the river obtained the name of *Cius*.

The promontory of Boz-boroun, or the Icy Cape, *(Posidium)* forms the northern entrance of this gulf, and is full in view from Constantinople; the Prince's Islands *(Damonesi)* lying between. From the combination of seas, gulfs, lakes, and rivers, the lands between Nicæa and the Euxine are broken into masses, whose geography is very singular and remarkable. And here one cannot leave the shores of the *Propontis*, without regretting, that, in so enlightened an age as the present, the noble gifts of nature bestowed on this whole region, should be rendered almost useless by evil government. The sites of *Byzantium*, of *Cyzicus*, and the whole Chersonesus of Thrace; the advantages accruing from the positions of the two canals of the *Bosphorus* and

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the *Hellespont;* and of the gulfs of the *Propontis;* struck the minds of the Greeks as early as they possessed the means of forming colonies, or of establishing commercial and military stations. A bason so magnificently garnished has been no where else seen. Extend the view into Asia Minor, on the one hand, and into Roumili *(Thrace)* on the other; to what an extent they are connected, by means of seas, straits, gulfs, lakes, and rivers! The *Hebrus* on the one hand; the *Sangarius* on the other. And with what barriers of mountains they are defended; *Hæmus, Olympus,* and *Taurus.* And with every requisite to form a powerful navy! Is it wonderful that any European nation, within reach, should covet the possession of such advantages?

Olympena appears to have comprised generally the tract between the *Rhyndacus* and *Sangarius;* that is, the SW. corner of Bithynia. Herodotus includes it in *Mysia.* (Clio, 36.) We learn from Xenophon that the *forum of the Ceramians* (Kutahiah, or *Kermian,* no doubt) stood in *Mysia;* and it is said that when this tract was added to the dominions of the king of *Pergamus,* and acquired the name of *Phrygia Epictetus,* it was *taken out of* Bithynia. Nothing can shew more clearly the mutations of the boundaries of the countries, which are the subject of ancient geography; that Bithynia has thus encroached on Mysia; and in its turn suffered an encroachment from Phrygia! And that the same territory within the reach of history should have successively formed a portion of *Mysia, Bithy-*

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nia, and *Phrygia.* Strabo might well have found it difficult to distinguish the boundaries, when such changes took place.

The course of the river *Sangarius,* or Sackariah, across Bithynia, divides it in respect of its length nearly into two equal parts. The portion already treated of is that which lies to the west of the river. That to the east is exceedingly mountainous and woody. The forests of ship timber, including masts, are so extensive, that the Turks call them, collectively, *"the Sea of Trees."* It extends from the west of the Sackariah to the utmost bounds of Bithynia, eastward; and southwards into the ancient *Galatia;* being at least 120 miles in length from west to east, and 40 in breadth. As the Sackariah passes along the border, and even through a part of this forest, the junction of it with the gulf of Nicomedia would have readily brought its valuable produce into use.

Boli, near the source of the *Billæus* river, has been mentioned as *Hadrianopolis.* The Abbé Sestini found inscriptions there to this effect. It appears to have been the city named by Ptolemy, *Timnea,* but placed on the *Hippus.* Boli is the principal city of this quarter, now called the sanjak of Boli. We find in the same quarter, the *Carus* of the Antonine Itinerary, under the name of Keredy: *Antoninopolis* answers to Baiander; *Modreni* is Moderni; *Dusepra* is Dusdjy; *Coenon Galicanon* in Goinek; and *Dablæ* in Terakly. *Claudiopolis* and *Cratia* are not recognised in modern geography, and are only placed by the distances in the Antonine

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Itinerary. Ptolemy places *Claudiopolis*, called also *Bithynium*, on the river *Elatas*, meant either for the *Lycus*, or the river of *Elæum*; but with M. D'Anville, we conceive that it stood on the *Billæus*; and that *Elæus*, or *Elatas*, is substituted for it.

It remains that some particulars respecting the sea-coast of Bithynia, from the entrance of the *Bosphorus* of *Thrace*, (or canal of Constantinople) to the mouth of the *Parthenius*, should be mentioned. The distances between the several stations are discussed under the head of "Arrian's Periplus of the Euxine," in Book IV.; to which we beg leave to refer; reserving for this place some particulars relating to the places themselves.

The THYNI possessed that remarkable tract between the Bosphorus and the Sangarius, and almost shut up on the land side, by the gulf of Nicomedia, the lake of Sabanja, &c.: the breadth of which across, from the head of the gulf to the coast of the Euxine, was no more than 20 miles. Within this space was *Calpe*, a port described by Xenophon as being secure and commodious. This place answers to Kirpé, or Garpah, situated midway between the *Bosphorus* and *Heraclea* of *Pontus* [1].

The MARIANDINI possessed the coast between the Sangarius and Heraclea, where the sea forms a deep bay, terminated by the promontory of *Posideum*,

[1] We have no particular description of *Calpe*, Kirpé, or Garpah in any modern traveller. It may be remarked, that as the ancient names of this place, and of Gibraltar, are similar, so are the descriptions; whence it may be concluded, that it must have been a significant name at that day.

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(now Cape Baba), the termination of a peninsula, in which *Acherusa* was situated. *Heraclea*, distinguished by the agnomen of Pontus, and now called Arakali, and Pendarachy (a corruption of Pont-Arakali), has filled the page of history by its grandeur and its misfortunes; and its remains testify its former importance[1].

To the MARIANDINI, succeeded the CAUCONES; occupying both shores of the lower course of the *Billæus* river. Here was situated *Tium*, or *Tios*, at the west side of the embouchure; now represented by *Falios*, which is also the corrupt modern name of the *Billæus*, but we hear of no remains of *Tium*.

The *Parthenius* river, now Partin, or Bartin, is 100 stadia to the eastward of the *Billæus*. A modern town of *Bartin* lies a few leagues up the river. And here our subject of BITHYNIA ends.

Paphlagonia.

PAPHLAGONIA contains generally that tract of Asia Minor which projects beyond the line of the coast of the Euxine, towards the Krimea, and which occupies the central part of the southern coast of that sea. Under its proper limits, it extends from the mouth of the river *Parthenius* to that of the *Halys* (that

[1] For an account of the remains of ancient *Heraclea* of *Pontus*, see Tournefort's Travels, Vol. iii. and M. de Beauchamp in the *Mem. Egyptiennes*, Vol. ii.

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is, the Bartin and Kizil Irmak of the present geography), and is about 200 miles in length from west to east. As the courses of those rivers are exceedingly oblique, in respect of the coast, the lower parts of both are necessarily included in Paphlagonia. Towards the interior, this province appears to have been separated from GALATIA on the south, by the continuation of Mount *Olympus*, under the modern names of Ala, Koos, Tashan, &c.; whence its greatest breadth may be about 100 miles from N. to S. On the west it was bounded by *Bithynia;* and on the east by *Pontus*.

In the present geography it contains the entire sanjak of Castemuni, which ranges along the shore of the Euxine, forming the *projection* above-mentioned. It contains also, on the south, a large proportion of the province of Kangiri; and on the south-east and south-west, respectively, a small portion, or corner, of Janik and of Boli.

It must be inferred, that in the time of Xenophon Paphlagonia extended eastward, very far beyond not only the *Halys*, but the *Iris* likewise; perhaps beyond the *Thermodon*. For the Paphlagonians were evidently neighbours to the Greeks, at *Cotyora*, which is more than 90 miles to the eastward of the Halys. (See the Anabasis, lib. v.)

Very little is known concerning the detail of the interior of this tract; as it lies entirely out of the line of European travellers, who leave *Paphlagonia* to the north. That line runs from Boli *(Hadrianopolis)* through *Carus* (Keredy), *Antoninopolis* (Baiander), *Pompeiopolis* (Toosia), and *Amasia*,

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through a remarkable valley of more than 200 miles in length, from west to east, at the northern foot of Mount Ala and Koos. In this valley, the western part of which belonged to *Bithynia*, the eastern, and largest, to *Paphlagonia*, are the sources that form the rivers of *Billæus* and *Parthenius*; as well as the Dorek or Doros (unknown in the ancient geography), a principal branch of the *Halys*, formed below the high level [1].

There are no rivers of any considerable bulk in Paphlagonia, the Halys and Parthenius excepted, which only wash its borders. The *Amnias*, now Ima, is said to flow from the Hissar Ima mountains; in which grows the best mast timber used in the Turkish navy. This river gains the sea between *Sinope* and the *Halys*.

Castemuni is the capital of the modern province of that name, and supposed to be the *Germanicopolis* of ancient times. Not far from this city are the copper mines of Jebel Mâden Nahos, reckoned very rich. The Turkish geographer of Natolia says, that the people employed in these mines emit a horrible stench from their bodies when they come to the surface; and it is remarkable that Strabo (p. 562) says much the same thing, when speaking of copper mines, which seem to be those of Paphlagonia.

The sea-coast of Paphlagonia was thickly set with towns and cities; some of them of great interest, as

[1] This valley may be reckoned a counterpart to those of Akshaher and Iconium, in the south of Asia Minor; lying at opposite sides of the high level.

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Sinope, Amastris, Cytorus, Ionopolis, &c. The positions of all will be found in the map, as well as the distances, &c. in the remarks on the Periplus of Arrian. But some of them deserve particular mention in this place.

Beginning in the west, near the frontier of *Bithynia, Amastris,* well known in history, still bears the name of Amâsarah, though reduced to a small town. The site of *Sesamus* is adjacent to it.

Cytorus, now Kadarôs or Ghidrus, lies to the east of Amâsarah. This is a great place of export of ship timber; and at Kara-Agatch, in its neighbourhood, ships of war are built, and cordage and sails made.

Next follows the lofty promontory of *Carambis* (now Kerempé), formerly supposed to have been the farthest advanced to the northward of the lands of Asia Minor. But the Cape of Indgé, 22 leagues farther to the east, is more northerly by 10 miles; but being low, was not so much taken notice of as the other. Between these two capes are situated Ainaboli, or Ineboli, anciently *Ionopolis,* and *Abonimœnia,* the port of Castemuni; from whence it is distant two journeys to the south-east: then Ghinuk, or Inichi, the ancient *Æginetes*; Kinoly, *Cinolis;* and Astafan, *Stephane.*

Sinope is still Sinub. This celebrated place is situated at about 20 miles to the SE. of Cape Indgé, on the isthmus of a small peninsula, and so placed as to occupy the isthmus, and to receive the advantage of a bay on either side. The peninsula too, being 6 miles in length, afforded pasturage in security

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to their cattle, in the event of a siege. But the ports were too much exposed, with certain winds; and then the securer port of *Harmene*, now Ak-Liman, only 5 miles distant, to the north, was resorted to. Xenophon's army took shelter there in their ships; and M. de Beauchamp's embarkation, in 1796, enjoyed the same advantage.

Sinope was founded by the Milesians, and was the most celebrated city of any in the Euxine. At present it is in a very low state of decay, though not utterly extinguished, like its parent city. Ships of war are built there for the Turks. The reader will find many curious particulars relating to its modern state in Tournefort and in M. de Beauchamp's account of his voyage to and from Trebizond, in the second vol. *Mem. sur l'Egypte.*

The reader conversant in the geography of Asia, will find a vast difference in the form of the land, in this quarter, between the present map and that of M. D'Anville; since the present is made from materials actually collected on the spot, by M. de Beauchamp, and the other from vague authorities; but doubtless the best that M. D'Anville could collect at that time.

Pontus.

The extent and boundaries of PONTUS, considered as a province, are extremely vague. The term itself

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seems to have intended nothing more, originally, than the maritime part of CAPPADOCIA; in contra-distinction to the interior part, or Cappadocia at large; from whence it was dismembered, in order to form a separate satrapy. For Cappadocia originally extended from Mount Taurus to the Euxine, and its inhabitants were denominated *Leuco-Syri*, or *White Syrians*.

But since the first adoption of the term, it has been extended, so as to lose sight entirely of the original meaning; for it has been applied to the whole southern coast of the Euxine, from the *Propontis* to *Colchis*. Strabo seems to have adopted that idea, as a general division, making *Paphlagonia*, *Bithynia*, &c. subdivisions of it. He also, with others, extends it to *Colchis*, which seems proper enough, if this latter country be reckoned to include, westward, the district of Trebizond; but not otherwise: because *Cappadocia*, of which Pontus was the maritime part, extended only to the Euphrates, and to the mountains of the *Moschici*. It becomes, therefore, a difficult task to describe the boundaries of Pontus, towards the east; nor is the subject without its difficulties, on the south.

As to the kingdom of Pontus under Mithridates, it consisted not only of Pontus *Proper*, but of as much more as he could add to it. It was a kingdom, of which Pontus itself became one of its provinces.

Ptolemy includes *Pontus* in *Cappadocia*, as it stood originally, dividing it into three districts: *Galaticus*, towards *Galatia*; *Polemoniacus*, between the *Thermodon* river and *Pharmatenus*; and

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Cappadocius from thence to *Trapezus*. But he also assigns to the latter the country beyond Trapezus, and to the neighbourhood of the *Phasis* river. And Pliny (lib. vi. c. 5.) includes the region of *Colchis* in *Pontus;* at least that part of it on this side of the Phasis. The Phasis, he says, is a river of Pontus.

On the whole, it would appear that the *proper* country of Pontus ought to be confined to what was originally the maritime part of Cappadocia; that is, between the mouth of the Halys, on the west; the river Euphrates and mountains of the *Moschi* or *Moschici*, on the east; which mountains terminate on the Euxine, at *Hieron-orus*, (or the holy mountain of *Thecheſ*, according to Xenophon.) And within these limits, Pontus may be reckoned 200 miles in length, from east to west [1].

The line of separation between *Pontus* and *Cappadocia* will be best understood by enumerating the cities belonging to Pontus, in the interior. *Amasia*, *Comana Pontica*, *Zela*, and *Kolonia*, are reckoned to belong to Pontus: and, as all of these are situated either adjacent to, or near, the course of the river anciently named the *Iris*, (or on its principal branches), Pontus includes at least the course of that river, and its principal branches, now named Tozzan, or Tosan-lu; and passing by the present towns of Tokat, Niksar *(Neocæsaria)*, Koyûnli-hissar *(Kolonia)*, Karahissar, and Zela *(Zela)*.

[1] Arrian, in his Periplus of the Euxine, appears to exclude from Pontus all the tract beyond Trebizond.

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Strabo says (p. 561) that Pontus extends to the country of the *Trocmi*, one of the three principal tribes of the Galatians. These possessed the tract along the Halys, from the district of *Ancyra*, on the west, to the eastern extremity of Galatia. So that it may well be conceived, that *Pontus* extended westward to that ridge of mountains crossed by Tournefort, Tavernier, and Newbery, extending from N. to S. between the *Halys* and the *Iris* rivers; and which are likely to be the continuation of *Mount Paryadres*, from the east. And as the same *Paryadres* shut up, on the south, the country through which the *Iris* flows, it is not improbable but that it may also form the southern boundary of Pontus, in the line between Siwas and Tokat. (See No. III.)

Satala is excluded from *Pontus*, and is a member of *Cappadocia;* so was *Nicopolis* likewise. The southern boundary of Pontus must therefore have run along to the N. of these cities, and between *Nicopolis* and *Kolonia*. And accordingly, we thus gain a general idea of the boundary between Cappadocia and Pontus[1]; which allows a breadth of 100 miles between *Paryadres* and the sea-coast.

In modern geography the maritime part of Pontus, between the Halys and Trebizond, takes the name of Janik-Ili, or Janik. In this name may be clearly recognised the *Genetes* of Strabo, and of Apollonius Rhodius, and the *Genetæ* of Pliny, who includes both

[1] In effect, that the course of the *Iris*, and the cities near it, *Zela*, *Comana*, &c. being included in *Pontus*, it is likely that the chain of *Paryadres* formed the boundary, in the quarter between *Sebaste* and *Comana*.

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these and the *Chalybes* in *Pontus*. In the new Russian chart of the Black Sea, the name *Chanetes* appears, in a position directly inland from Kirason and Tiraboli *(Cerasus* and *Tripolis.)* This name is said to be synonymous with *Lazi*. Immediately within this spot, the mountains (which extend from Amasia to *Moschica)* have the modern name of *Shini*, answering in name and position to the *Sanni*, who are the same with the *Drilæ* of Xenophon. And finally, beyond these, to the east, are found the Mesjidi mountains, answering to the *Moschici*. It is very satisfactory to find these ancient names remaining; and also in their proper places. But along the sea-coast they abound; for there are found most of the names recorded by Arrian, in his Periplus, with little variation, save in the terminations.

Pontus, in its interior, is exceedingly hilly and mountainous, but is a beautiful country. Towards the Black Sea there are some extensive plains, especially near the mouths of the *Halys*, the *Iris*, and the *Thermodon* (now Tarmah.) The plain of *Themiscyra*, the reputed abode of the Amazons, is supposed to have been formed by the depositions of the Thermodon and Iris; and that of *Phanaroea*, through which the Iris flows, is much celebrated for its extent. But, on the other hand, the sea-coast between *Cotyora* and *Tripolis*, the seats of the *Mosynoeci*, is said by Xenophon to be the roughest country ever seen.

The principal rivers of Pontus are the *Halys*, *Iris*, *Thermodon*, and the *Sidena;* respectively named in modern geography the Kizil-Irmak, Atoe or Aitoe,

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the Jekil-Irmak, or green river, the Tarmah, and the river of Fatsa.

The *Halys* becomes a large stream before it descends into Pontus, where it discharges itself by three mouths, which appear not to differ much, in position, since Arrian described them. Like most other rivers, it has formed a large tract of alluvion, as well as a shallow bank in the sea, opposite to it. For more particulars respecting the Halys, see Vol. I. p. 351—353; and also Book IV. chap. 2.

The *Iris* falls into the sea within 20 miles of the *Halys*, at Samsoun, taken for *Amisus*. It is shewn, elsewhere, that the gulf of *Amisus* does not penetrate so deeply into the land as most of the modern geographers have represented; perhaps from the report of Pliny. In Ptolemy it is much overcharged; but in M. D'Anville's last map of Asia Minor it is described to enter, within the line of the shore, 30 miles; although, in reality, it goes only about 10. But so entirely is the tracing of the coast at variance with the truth, that between Cape Indgé and Cape Boona, M. D'Anville allows a receding of 68 miles, when 25 is the utmost. We are indebted to M. de Beauchamp for the correction of this error.

The Iris has been mentioned, amongst the rivers of Asia Minor, Vol. I. p. 354—356; but such particulars as more directly apply to the comparative geography were reserved for this place.

It has been said that the *Iris* is formed of three principal branches, the *Iris* PROPER, and the *Lycus*, from the SE. and ESE.; the *Scylax*, from the SW. The *Iris* (Tozzan) and *Scylax* first unite at the

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city of *Amasia;* the *Lycus* joins the confluent waters lower down. On the *Iris* are situated *Comana Pontica, Eutochia,* the modern Tokat, *Sebastopolis,* taken for Turkal; and finally, *Amasia.* And on the *Lycus, Kolonia,* now Koyunli-hissar, and *Neocæsaria,* now Niksar. This is the general description; for of the Scylax we know no particulars.

Strabo, who was a native of Amasia, and therefore born on the banks of the *Iris,* describes its course with more detail than is usual with him. He says, p. 547, that it rises in *Pontus,* passes by *Comana,* and waters the region of *Daximon,* situated towards the *west.* Then bending *northward,* it passed by *Gaziura*[1]; and from thence, turning to the *east,* receives the river *Scylax,* under the walls of *Amasia;* and enters the district of *Phanaroea.* That afterwards it receives the *Lycus* river (pp. 556 and 529) from the Lesser Armenia, which joins the *Iris,* at the place where *Eupatoria* or *Magnopolis* was built[2].

On the whole, this description will be found to agree. The Tozzan river answers to the *Iris;* for it flows by the site of *Comana Pontica,* and thence through the province in which Tokat is situated, with a westerly course, and then turns suddenly to

[1] *Gaziura* was deserted before the time of Strabo, (p. 547.) It was in existence at the date of the war of Mithridates, and is mentioned by Sallust as a royal city. Perhaps it was destroyed at that time.

[2] Strabo says (p. 547) that the *Iris* receives the *Themiscyra* river. Did he intend to say the *Lycus?*

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the *north;* as is particularly remarked by M. Tournefort. Hence it may be concluded that the ancient name of the Tokat province was *Daximon;* and that *Gaziura* lay between it and Amasia. Turning afterwards somewhat to the eastward, it reaches Amasia, where a river from the SW., from Geder and Gulkiras, answering to the *Scylax,* falls in [1]. Lower down it receives the Kelki river, which passes by *Niksar,* and therefore answers to the *Lycus* [2].

It is proper to notice, in this place, certain positions in this quarter, which throw some light on ancient military history.

Dadow is a place at no great distance to the westward of Amasia: and on the road from that place to Anguri *(Ancyra.)* This appears to be the *Dadasa* of Sallust, the Roman depot that was besieged by Mithridates, (Sallust, lib. v.) During the preceding year the armies of Mithridates, and of the Romans, commanded by Triarius, met at *Gaziura,* said by Sallust to have been an ancient royal city and fortress, towards the *Halys;* but the *Iris* is

[1] The modern name of this river is not known; nor its course, with any certainty. But one branch doubtless runs by Geder. It may be the Shogaruk of the Turkish geographer, said to come from the quarter of Yuzdeparé, whose position is unknown to the author.

[2] Pliny says (lib. vi. c. 3.) that *Neocæsaria* stood on the *Lycus.* The Niksar river joins that of Amasia, below the city. (Morier.)

The source of the *Lycus* is not known. A note in the Noticia of Hierocles, page 703, says, that it flows within 6 miles of the *Nicopolis,* built by Pompey. But this appears doubtful. But it unquestionably flows through the Lesser Armenia.

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more probably intended, as we are told above, by Strabo, that the *Iris* runs through the district of *Gaziura*, and the *Halys* is a great way off. *Dadasa* must have been situated either within, or on the borders of, the district of *Gaziura*. After the siege, Triarius followed Mithridates to the plain of *Zela*, said to be situated on the frontiers of *Pontus* and *Cappadocia*, which was true; but not so, that it lay between the *Iris* and the *Lycus*. But Sallust is often mistaken in points of geography.

The description of *Zela* (in Sallust, lib. ii.) accords with the place of that name within a few leagues of Tokat. It is a fortress on an isolated rock or hill, on the side of a plain, bordered by the *Iris* on one side, and on the other, at 3 miles distant, by a kind of amphitheatre of low hills [1]. In this plain *Triarius* suffered a complete defeat: and here *Cæsar*, about twenty years afterwards (B.C. 47), defeated Pharnaces, the son and successor of the same Mithridates; and so promptly was the victory won, that it gave rise to Cæsar's remark, so often quoted, *veni, vidi, vici!*

We differ from M. D'Anville, in respect of several ancient positions in this neighbourhood. He places *Comana Pontica* at Almons; *Verisa* or *Berisa*, at Tokat; *Gaziura*, at Geder. We agree perfectly in

[1] M. Tournefort crossed this plain, unconscious of the events that had taken place in it. His travelling companions, the merchants, were totally ignorant of the names of places, or *Zela* would have roused his attention. But its situation is unquestionable, as it is derived from the Turkish geographers, and from M. Otter.

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referring *Sebastopolis* to Turkal. But *Verisa* we should place about Jakudbolus, between Turkal and Siwas (or *Sebaste.)* Tokat itself has been referred to *Eutokia,* or *Eudoxia*[1]*:* the Greeks of that place reported this to Tournefort; and it appears probable, as *Daximon* was the name of the including province. *Comana,* at Almons, would be too far from *Sebastopolis* (Turkal): but if we suppose the *Stabulum* of the Theod. Tables to be intended for *Sebastopolis,* (as is highly probable,) the position of *Comana* falls at 8 miles to the eastward of Tokat, where there are some curious remains of antiquity; that is, chambers hollowed out of a great rock in the plain; and even to this time employed in religious uses. (For the particulars of the geographical construction, see the Roman roads in Asia Minor, article *Comana Pontica.)*

An important position of the name of *Talaura,* or *Talauri,* occurs in the history of the Mithridatic war, but which cannot be placed for want of information. It was a fortified place, in which the king of Pontus had deposited his women and riches. It ought to have been near *Comana;* for when Lucullus advanced from *Cabira* (afterwards *Sebaste)* towards *Comana,* Mithridates broke up from *Talaura* for the Euphrates. And again, it is said that he had many fortresses in the neighbourhood of *Comana;* and that he retired into *Talaura,* as implying that it was one of them. Here it may be remarked, that the *Lycus* of Sallust, between *Cabira* and *Amisus,*

[1] *Eudoxiara,* Ptolemy.

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answers to the Tûm, or eastern branch of the *Halys*, (lib. iv.)

Amasia, which has not changed a letter of its name in modern geography, agrees in the descriptions of modern travellers so exactly with the account of Strabo, (p. 561,) that the agreement of names is not required. The circumstances of the deep, narrow valley, and its entrances, the abrupt nature of the sides, the site of the castle, and the course of the *Iris* through the valley, are strongly marked. These descriptions will be found in M. Otter, Dr. Howel, Mr. Jackson, and the Abbé Sestini. The condition of Amasia, and the state of society in it, are so superior to all around, that it is styled in Lower Asia the BAGDAD of ROUM.

Niksar *(Neocæsaria)* and Koyûnli-hissar *(Kolonia)* are the only ancient cities whose site can be recognised in the interior of Pontus. The former of these is placed by Mr. Morier at 22 G. miles ENE. from Tokat; and the other, by the same gentleman, considerably more to the east, in the road from Tokat to Erzum.

The position of *Nicopolis*, built by Pompey, in commemoration of his victories in Pontus, as well as *Satala*, *Dracones*, and other positions in and about Pontus, are placed on the authority of the Roman Itineraries only. It appears to have been near *Kolonia*.

The *Hepta Cometæ*, or seven districts, contiguous to the mountains of the *Sanni* and *Moschici*, south of Trebizond, are reckoned to belong to Pontus.

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This tract is represented as rough, wild, and barbarous. Pliny designates it under the name of the *Armeno-Chalybes.* It is now called Keldir. It may be remarked, that this name, or something like it, occurs frequently in this region, from the shore of the Euxine, near Cape Iasoun, to Mount *Ararat.* Although the Greeks may have nick-named some of these tribes, who were workers in iron, yet this could not have been the case universally; as they could not have had opportunities of knowing the facts. The name Chalderan is applied by the Turks to some large districts adjoining the river Arash, or *Araxes.*

The sea-coast of PONTUS contained many cities and ports, famous in ancient history. All of these are detailed in the division which contains the observations on the Periplus of Arrian. *Amisus* is justly supposed to have occupied the site of the present town of Samsoun, at the mouth of the river of Amasia, the ancient *Iris.* There commenced the plains formed by the depositions of this river, and of the Tarmah *(Thermodon)* situated about 35 miles farther on to the eastward. These plains were named *Themiscyra,* from a city of that name; and were the reputed residence of the *Amazons.* Besides the plain, these rivers have formed extensive mud banks, in the adjacent sea, according to M. de Beauchamp.

The source of the *Thermodon* is not known. By its alluvions, one may suppose it to be a considerable stream, and of a long course.

The river Sidin (or *Sidena),* which discharges

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itself at Fatsa (ancient *Phadisana*[1]), is also supposed to have a long course; for some of the merchants in the caravan with M. Tournefort informed him, that a stream which they crossed, at about 30 miles west of the Euphrates, in the road to Tokat, ran to Fatsa.

Between the Tarmah and the Sidin is Auniah, or Unieh *(Œnoe)*, an emporium for silk; and beyond Fatsa is Cape Iasoun, the *Iasonian* promontory of Arrian, stretching itself out to a great length into the sea. Strabo (p. 548), says that it was likewise named *Genetes:* and Apollonius Rhodius lands the Argonauts on it. The name *Genetes* we have supposed to be the same with the present *Janik*, applied to the coast of Pontus at large: but the Chanetes, meaning a tribe of the Lazi, (or Laz), are at present settled in the quarter of Janik, within Kirason and Tiraboli.

Cotyora[2], the first place of embarkation of the Greeks under Xenophon, lay to the eastward of Cape Iasoun, where the coast retires to form a wide and deep bay between it and the promontory of Iorus, *(Hieron-orus)* not far short of Trebizonde. Within this bay are the seats of the *Chalybes* and *Mosynœci;* and the cities of Kirason and Tiraboli *(Cerasus* and *Tripolis)*. It will appear hereafter, that when

[1] *Polemonium*, the capital of King Polemon, (when Pontus was divided into *Polemoniacus* and *Helenopontus)*, was only 10 stadia from *Phadisana*.

[2] *Cotyora*, described as a city by Xenophon, was no more than a small village in the time of Arrian. The long halt of the Grecian army there was sufficient to ruin any ordinary city.

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Xenophon speaks of reaching *Cerazunta,* (or *Cerasus)* in three marches from Trebizonde, that it is an error in the name; and that *Coralla,* now Korabali, must have been meant, since Cerasus is near six marches distant. This place was also named *Pharnacia;* though some have made them distinct places.

Trebizonde, as it is commonly called; but properly Trabezon, from *Trapezus,* its ancient name, is still a place of some consideration; but it certainly derives its classical fame from its receiving the Ten Thousand, after their wonderful retreat; since that event fills the mind to a greater extent than the circumstance of its having been the capital of a fragment of the lower empire [1].

Arrian appears to consider all the tribes between Trebizonde and the *Apsarus* river, as being distinct from Pontus. When he says that Apsarus terminates the *Pontus,* he is speaking of the *sea* so called; it being truly at its eastern extremity. The *Heniochi* and *Sydratæ,* he says, have kings of their own. And if these, with Trebizonde, have been at any time classed as belonging to Pontus, it was only by *extension;* and for the sake of convenience in the formation of a political division.

Nor can these provinces be regarded as a portion of Asia Minor, but rather of Armenia, as they are classed by the Turks at this day. We shall, there-

[1] For a description of modern Trebizonde, see Tournefort's Travels, Vol. iii.; and M. de Beauchamp's Voyage in the *Memoires sur l'Egypte,* Vol. ii.

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fore, consider them under the head of Armenia and Caucasus.

The prevalence of Greek names in the Euxine, and on its borders, shews the low state of civilization in which the inhabitants remained previous to the navigation and settlements of the Greeks amongst them. That the cities founded by the Greeks should bear the names originally given them was to have been expected; but here we find the promontories, islands, and even rivers, bearing Greek names, in a country fully inhabited at the time they were given; and many of these names significant of particular qualities, or alluding to personages; as *Hieron-orus, Acra Melana, Halys, Iris, Parthenius,* &c. Amongst a people who do not practise navigation, peninsulas, islands, promontories, straits, and gulfs, are no objects of interest; and a nomenclature of such a kind would be useless. The Greeks, as navigators, came into the Euxine, as the Europeans, in latter times, came on the coasts of New Holland, New Zealand, or the NW. coast of North America: and bestowed names where none existed before. And as Cape Iasoun preserves the name given it by the Argonauts, before the date of history, and will probably preserve it to the end of time; so, in like manner will Cooke's Strait, and Banks's Island, when the history of the voyage may have perished, and the transactions themselves have left no more traces of authenticity than those of the Argonauts have at present.

In certain cases, the Greek name of a river may not have been in use far above its *embouchure*. The

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Halys, so called by them, because of its saltness, seems, however, to have preserved its *original* name higher up; where *Ecco-briga* seems to have intended the *bridge* over the *Ecco;* or perhaps *Etko:* for we learn that it is now called, by the country people, *Aitoe*, or *Atoe* [1].

The hydrographical names given by the Greeks were probably adopted gradually by the proper inhabitants of the country, as they became a seafaring and commercial people; as we adopt the name of any invention with the use of the thing itself. It is certain, however, that the names generally in use by the Turkish mariners, at this time, are the same (in respect of the *roots* of the words) as those given by Arrian, &c.

[1] Other rivers have preserved their names in despite of the edicts of conquerors. The river called by the *Syro-Macedonians*, *Orontes*, was originally *Axios*, and is now *Asi*.

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CHAPTER VI.

PHRYGIA, GALATIA, AND CAPPADOCIA.

HAVING now made the entire circuit of the *maritime* provinces of Asia Minor, we come to the central or midland provinces of PHRYGIA, GALATIA, and CAPPADOCIA, which form an intermediate range between the provinces along the Black Sea, and those along the Mediterranean.

The arrangement is very simple, and easily retained in the memory. *Phrygia,* generally speaking, lies opposite to *Bithynia* on the Black Sea; and *Lycia* and *Pisidia* on the Mediterranean; and *Cappadocia,* opposite to *Pontus* on the Black Sea; and to *Cilicia* on the Mediterranean. At the same time, *Galatia,* which has been formed *chiefly* of districts dismembered from the northern parts of both *Phrygia* and *Cappadocia,* comes between them; and is opposite to *Paphlagonia* on the Black Sea.

Thus, the three countries do not lie in a *direct line,* because *Phrygia* and *Cappadocia join* on the south, and exclude *Galatia* on that side.

Previous to the irruption and settlement of the Gauls, it is probable that *Phrygia* and *Cappadocia* joined throughout; and that the junction was in the quarter of Anguri or *Ancyra.*

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Phrygia.

PHRYGIA and CAPPADOCIA anciently comprised the great body of Asia Minor; but PONTUS, together with the eastern quarter of GALATIA, were dismembered from CAPPADOCIA; the western GALATIA, with LYCAONIA and MILYAS, from PHRYGIA. And although a portion of BITHYNIA was added to the latter on the side of *Phrygia Epictetus*, yet it bore no proportion to the dissevered parts; for the western Galatia may be reckoned equal to a large proportion of what remained of Phrygia. So that Phrygia was the *residue* after the Gauls had overrun and seized upon the part convenient for them; and hence its figure on the map became very irregular.

Under its greatest original extent it had the river *Halys* on the east; MYSIA, LYDIA, and CARIA on the west. *Taurus* and its branches formed the general boundary on the south; Mount *Olympus* and its prolongation (Ala and Koos) on the north. And under these dimensions, it was more than 250 British miles from east to west; and more than 200 in breadth from north to south. But after the loss of Galatia, &c. &c. it was reduced to about one half; and from a pretty regular figure, approaching to a parallelogram, became very irregular. Its boundaries, finally, were *Bithynia* on the north; *Galatia*, north-east; *Cappadocia*, east; *Lycaonia, Isauria, Pisidia, Milyas*, and Mount *Cadmus* on the south; *Caria, Lydia*, and *Mysia* on the west.

Phrygia Proper has been named the *Greater*

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Phrygia, in contradistinction to *Lesser* Phrygia; a name applied to that part of Mysia, towards the *Hellespont;* and of which *Troas* made a part. This was in consequence of the settlement of the Phrygians there, after the destruction of Troy, and the consequent spoliation and depopulation of the surrounding country. But this name gave way to MYSIA; by which name that province is mentioned by Xenophon.

One of the provinces of Phrygia was named *Epictetus,* or the *Acquired;* a part of it having been taken from Bithynia to add to the kingdom of Pergamus, established by the Romans in favour of Eumenes. (Livy, lib. xxxvii. c. 56.) This formed the north-west quarter of Phrygia, towards Bithynia, and had the cities of Cotyæum and *Dorylæum* in it. Another district, on the south, adjacent to *Taurus* and *Pisidia,* was named *Paroreias,* and appears to have consisted of that beautiful, well watered, and populous tract, enclosed between the range of Sultan-dagh on the south, and Emir-dagh on the north. Through this valley or plain lay the route of Xenophon, with Cyrus the younger; and it is still the grand communication between the *ci-devant* Iönian provinces and Syria; as well as that between Constantinople and Syria. For the ridge of *Paroreias,* extending from west to east, and having *Philomelium* on the north side; *Antiochia* of *Pisidia* on the south, appears to be clearly marked in Strabo, page 577. This province contained the cities or towns of *Prymnesos* (Aufium-Karahissar), *Euphorbium, Thymbrium, Philomelium, Juliopolis, Dinæ* (Bu-

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lawadin), and that called by Xenophon, the *plain of Caystrus,* which must have been at or near Sakli [1].

Pacatiana and *Salutarius* were divisions of Phrygia under the lower empire; and appear to have comprised the whole of it. The former was the SW. part adjacent to Lydia, Caria, and Pisidia; and having *Laodicea ad Lycum* for its capital: the other, the central and northern parts, towards Bithynia, Galatia, and Cappadocia; and of this division *Synnada* was the capital. The cities and towns of Phrygia were very numerous; the principal of them will be spoken of hereafter in the course of the discussion.

The boundaries of *Phrygia,* towards *Pisidia,* in the quarter of *Apamia Cibotus* and of *Cibyra,* are very indecisive, through the want of precision in the ancient geographers. Xenophon entered Phrygia on the west, on his crossing the river *Mæander,* near *Laodicea ad Lycum;* and Strabo, as we have seen, (page 578), places the common boundary of *Phrygia* and *Caria,* at *Carura,* whose position may be approximated, and placed about 18 miles below *Laodicea.* It has also been shewn, that Xenophon reckons *Iconium* (Kuniyah) the *last* city of Phrygia, (going eastward); but Strabo, with more apparent probability, reckons *Tyriæum* the last city. Almost every authority gives *Iconium* to *Lycaonia;* and Xenophon's information can only be received by supposing that he reckoned *Lycaonia,* as some others have done, a portion of Phrygia.

[1] Called also *Seleukter,* probably a corruption of *Seleucia.*

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In order to trace the southern boundary of Phrygia from *Carura* to *Tyriæum*, one must follow the course of Mount *Cadmus*, and of *Taurus* (since *Milyas* has been dismembered from Phrygia and given to *Lycia* by Darius) to the border of the lake *Ascanius*[1], the salt lake mentioned by Arrian, between *Sagalassus* and *Celænæ;* and thence to the western termination of Mount *Paroreias*, (or Sultan-Dag); since Pisidia advanced to the north of the Greater Taurus in this quarter. And from thence to *Tyriæum*, the ridge of *Paroreias* itself is of course the boundary between *Phrygia* on the north, and *Isauria* (a province of *Pisidia*) on the south.

Strabo has told us (p. 568), that the salt lake of *Tatta* marks the southern boundary of *Galatia*, and is itself comprehended in *Phrygia;* and that *Morimena*, a district of *Cappadocia*, is also adjacent to the same lake [on the east, of course]; consequently *that lake*, or rather the northern part of it, must form the *eastern* boundary of *Phrygia*, towards *Cappadocia*. And being also informed, by the same authority, (p. 568,) that the hills of *Lycaonia*, now named Fudal Baba, occur beyond the lake; those hills, of course, as being a portion of *Lycaonia*, prove that Phrygia must *terminate* in that neighbourhood; in other words, that this range of hills may be regarded as the common boundary of *Phrygia* and *Lycaonia;* as the lake of *Tatta*, not far

[1] Not the lake of *Nicæa*, which bore the same name; but the Agy Lake, or that also denominated from the town of Burdoor. The lake of *Nicæa* is fresh, that of Burdoor salt.

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from the northern foot of the same range, marks the junction, in that point, of the three countries of *Galatia, Phrygia,* and *Cappadocia ;* Galatia being to the north, Phrygia to the west, and Cappadocia to the east ; whilst Lycaonia is at no great distance to the south, and, with its main body, ranging parallel to that of *Galatia.*

The lake *Tatta,* at the eastern extremity of Phrygia, is situated nearly at the middle point of the southern frontier of Galatia ; so that *Cappadocia,* as well as *Phrygia,* is compressed, in this part of its breadth, within a narrow space, between Galatia and Mount Taurus [1]. Accordingly, Phrygia has only a breadth of 55 miles between Galatia and the mountains that border on *Phrygia Paroreias.*

Being past Galatia, to the west, Phrygia widens to its full extent ; and, in that quarter, its northern boundary may be taken at the foot of the southern *Olympic* ridge, which extends in a line with Mount *Temnus.*

It has been stated, under the heads of *Mysia* and *Lydia,* that the *eastern* boundaries of those countries were absolutely unknown ; and as Phrygia borders, on the west, on both those countries, it is obvious that the same want of knowledge must exist respecting it. But, in fact, this subject was not cleared up to the ancient geographers ; for Strabo laboured under the same doubts, and expresses it in terms. It was even proverbial.

[1] There can be little doubt but that a part of *Cappadocia* was seized on by the Gauls, as well as of *Phrygia.*

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The mountains of Phrygia have already been described, partly as connected with its boundaries, and partly in the view of Asia Minor.

Its principal rivers are the *Thymbris* (now Pursog), the western arm of the *Sangarius;* the *Mæander*, and the *Hermus*, or Sarabat. These collect on the upper level, on which Phrygia is situated, but leave it before they have acquired their full bulk. In the SW. quarter of Phrygia the *Mæander* collects from a great number of heads, which unite near *Laodicea ad Lycum*, and soon after force their way between Mount *Cadmus* and *Tmolus*. And the *Hermus*, from the same quarter, has but a short part of its course in Phrygia.

Phrygia contained several *whole* divisions, or sanjaks, and *parts* of others, according to Turkish arrangement; that is, the whole province of Kutahiah, the greatest part of Sultan-Oghi, the whole of Karahissar (Aufium), the greatest part of Akshaher, the western part of Hamid, and the southern part of Khodavendkaur.

Strabo, after enumerating several noted plains in Lydia, speaks of two others in Phrygia; those of *Peltæ* and *Tabenus*, (p. 629,) on the frontiers of Pisidia. The general position of *Peltæ* city is assumed from the march of Xenophon, in respect of *Cælnæ*, and of the Forum of the *Ceramians* (Kutahiah); but the site itself is unknown, and, of course, the nature of the country around it. It falls, on the construction, between Jaurkoi and Karahissar *(Aufium* [1]*)*.

[1] *Peltæ* was situated at 18 parasangas from *Celænæ*, towards

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That of *Tabenus* answers to the extensive plain, named *Dombay Ovasi* (or plain of Dombay), between Sandukly and the lake of Burdoor, where General Koehler saw some great ruins. The position agrees to the description of Strabo, "partly Phrygian, partly Pisidian."

The "Plain of *Caystrus*," mentioned by Xenophon, although given as a city, indicates a plain; and this also agrees to the great plain in *Pareorius* Phrygia, in which Sakli is situated.

The remarkable tract of country in Lydia and Phrygia, named *Kata-Kecaumene*, or the Burnt Country, extended between *Thyatira* and *Laodicea Combusta*. It was so subject to earthquakes, that it was

the *Ceramians;* 12 short of the latter. *Celænæ* is taken for Sandukly; the *Ceramians*, for Kutahiah (or Kermian). The distance between them is equal to about the aggregate sum of the two distances; that is, 22 parasangas of Xenophon's scale.

In Edrisi (p. 237) there occurs, in the road from Tarsus to the Dardanelles *(Abydus)*, a place of the name of *Peloti;* but the *whole distance* being too short, it can only be used in proportional parts; according to which, Peloti falls *between* Aufium Karahissar and Jaurkoi, and at about two-thirds of the distance towards the latter; but if the distance given from *Belcquessa*, (taken for *Belgers*,) be laid off, that is, 73 Arabian miles, equal to 77¼ G. miles, it falls at one-third only of the distance from Karahissar; that is, 11 or 12 miles different from the former result.

Peltæ was placed, on the construction, entirely independent of these results; and, taking its assumed position for the standard, the *proportioned distance* falls 8 miles to the NW. of it, and if the *given distance* from Belgers be taken, then three and a quarter to the SE. of it. This is an approximation far beyond expectation, provided that Peloti represents the *Peltæ* of Xenophon.

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supposed to be every where subject to the operation of subterraneous fires. (Strabo, 578, 579.) Indeed, Asia Minor in general has suffered in this way most deplorably; and travellers report that the soil every where manifests tokens of eruptions.

The salt lake of *Tatta* belonged wholly to Phrygia. Strabo describes it (in page 568), but Tavernier, who passed by the north end of it, in his way from Smyrna to Tokat, gives its position. It appears to be no less than 30 to 40 miles in length, but no more than 3 or 4 in breadth, and is the great magazine of salt for the country around. It appears to be much of the same nature with the salt lake of Aleppo. In the present times, it is named from Kodjhissar, a town in its neighbourhood. Its general position is midway between Anguri and Kuniyah.

The cities of Phrygia were very numerous, but as their corresponding names, ancient and modern, appear in the map, it would be unnecessary to give a catalogue of them here, although it will be proper to mention some of the principal ones.

Gordium, the ancient capital of Phrygia, became a *Galatian* city, after the dismembering of that portion of Phrygia; and *Pessinus*, in like manner, with *Ancyra* and *Amorium*. *Celænæ*, *Colossæ*, and *Peltæ* were spoken of before the Macedonian conquest; *Apamia Cibotus*, *Laodicea*, *Hierapolis*, *Dorylæum*, *Philomelium*, *Cibyra*, and *Prymnesia*, subsequently; and, together with a number of others, appear to have Grecian or Macedonian

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names. *Cotyæum*[1] (now Kutahiah), by the *root*, appears to be very ancient. *Synnada, Ipsus*, &c. doubtful.

Celænæ was a flourishing city, in the march of Xenophon, situated at the source of the river *Mæander*, with a strong citadel. The position is supposed to be now occupied by Sandukly. It was succeeded by *Apamia Cibotus*, a Macedonian foundation, at the distance of a very few miles lower down the river[2], and which, like *Celænæ*, was the principal city of that part of the country. Apamia was said to be second in rank only to Ephesus.

Colossæ was also a considerable city, in the march of Xenophon, situated near the entrance into Phrygia, from the side of Caria, and of Lydia. It is the *Chonos* of the present times, and no more than a village. Its inhabitants were the people to whom St. Paul addressed his Epistle.

Peltæ has been just mentioned.

Laodicea, on the river *Lycus*, which descends from Mount *Cadmus*, was of consequence enough to be the capital of the first, or *western* Phrygia, under

[1] One finds, in places between *Caucasus* and Constantinople, names whose roots are *Kuta, Kutee, Kotta*, &c., (generally places of *strength,*) as Kutais, anciently *Cyta* (or *Kuta*), *Cotyæum, Cotyora, Cytorus*, &c. In India, *Kooty* is the term for a place of strength, and is derived from the Sanscrit. Can this be the same word extended over Western Asia?

[2] Pliny (lib. v. c. 29.) says that *Apamia* was anciently called *Celænæ*, so that he supposed it to be on the same site. *Celænæ* and *Apamia* are both placed in the account of the Roman roads.

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the Lower Empire. At present, scarcely a ruin remains. It is situated at the very entrance into Phrygia, from *Caria*, and at no great distance to the west of *Colossæ*. Degnislu, at a very short distance to the SW., has succeeded it.

Synnada, though a small city, was the capital of the second division of Phrygia, under the Lower Empire. Its neighbourhood produced marbles of a most beautiful kind, and highly valued by the Romans, (Strabo, p. 577.) Excavations are remarked by Mr. Baldwin and others, in that quarter; probably the quarries themselves [1]. *Synnada* lay in the great Roman road from Constantinople to Syria. It answers to the ruins named Herjan, situated between Eski-Shaher and Ak-Shaher, and within a few miles of *Bayad*, the *Beudos Vetus* of Livy, (lib. xxxviii. c. 15.)

The site of *Ipsus*, near which city the battle was fought, which decided the fate of empire, in Lower Asia, between the successors of Alexander, is unknown. It is said to have been *near* Synnada, and there are certainly the remains of several ancient towns and cities, on the great road leading from Synnada towards the *Bosphorus*, and one of them within a few miles of Synnada, to the NW.; but it may be doubted whether Ipsus lay on that side of Synnada.

The contending armies approached each other,

[1] These excavations are found between Bar-dukly and Herjan, taken respectively for *Docimæum* and *Synnada*; and the marbles appear to have come from the neighbourhood of the former.

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along the great road that led from Syria and Cilicia, through the centre of Asia Minor, towards Synnada; but whether they met to the north or south of that city is not known.

A town named Sakli, and also *Seleukter*, (probably from its ancient name of *Seleucia,)* is situated on the continuation of the great road, at about 25 miles from Synnada, to the southward, and precisely at the point of separation of the roads leading to *Ephesus* and to *Byzantium*, in coming from *Syria*.

If *Seleucus* founded any city, on occasion of his victory, one might suspect that the field of battle was near, or at Sakli, from the above circumstance. No point was more likely for the opposing army, from the west, to have taken post at, than at the meeting of these roads, by which they commanded the passage through a plentiful valley, shut up by ridges of hills on both sides; the line of communication, as well in modern as in ancient times.

Philomelium and *Tyriæum* were situated in the same valley; the former a place of considerable note in the journey of Cicero, and answering to Ilgoun, where there are remains; the other a little farther to the eastward, and the last city in Phrygia.

Cotyæum answers to the present Kutahiah, one of the principal cities of Anadoli, situated on the *Thymbris* river, now Pursog, and in the great road from Brusa to Syria. This appears to be the market of the *Ceramians*, in the expedition of Cyrus; or, according to the Turkish geographer, *Kermian*, that having been the name of the province of Kutahiah.

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Dorylæum ought to be the present Eski-Shaher agreeing in every respect to it. It was likewise situated on the *Thymbris*, at two journeys lower down (to the NE.) from *Cotyæum*.

Prymnesos, according to Dr. Pococke, who observed inscriptions there to this effect, was at Aufium-Kara-Hissar, a principal town, in the present times, and supposed, by M. D'Anville, to be the *Celænæ* of Xenophon and Alexander.

Cibyra, at the SW. extremity of Phrygia, is thought, by M. D'Anville, to be the *Buruz* of the Turkish geographer. This city was once the capital of a considerable state, according to Strabo, (see p. 631,) and also Livy, (lib. xxxvii. c. 14.)[1]

Temno-theræ. This was a city of *Phrygia Pacatiana*, under the Lower Empire, but is mentioned by *Pausanias*, as a city of *Upper Lydia*, and as having some connection with the source of the river *Hyllus*. But the *Hyllus* and *Phrygia* can have no connection, and there is either an error in Pausanias, or another place is intended. Possibly it may have been at Tumanidje, a town situated near Mount *Temnus*, or Tumanidje, at the NW. extremity of Phrygia, and might have commanded a pass through that ridge, like *Hadriano-theræ*.

It will be proper, in this place, to continue the tracing of the march of Manlius, from *Cibyra*, towards GALATIA. The plan of Manlius appears to have been to lay under contribution, by the way, as

[1] The Rev. Stephen Weston has a very curious coin, or medal, struck at *Cibyra*.

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many of the petty states as he could, although absolutely neutral. And this appears to have been done, contrary to the opinion of the senate, as is shewn in the case of the *Oroandians*, (Livy, lib. xxxviii. c. 45.)

From *Cibyra*, he first turned towards *Pamphylia* and *Pisidia*, (xxxviii. 15,) and raised the siege of *Isionda*, then besieged by the *Termessians*, whom he laid under contribution. *Isionda* was a strong fortress, on or near the crest of Mount *Taurus*; for it was afterwards said in the senate, that he had reached "*nearly* the very summit, where the waters take opposite directions."

Thence he returned northward, through the territory of the *Sagalassians*, who resisted him, and paid the forfeit of their rashness. Continuing in the same direction, he came to *Comi Aporides*, which was near enough to *Apamia Cibotus* to allow Seleucus to reach his camp the next day, and thither the consul sent his sick people and useless baggage.

We regard this place as the *Apollonia* of the Theodosian Tables, 24 MP. from *Apamia*, eastward. For, from this place, he appears to have made three marches to *Synnada*, by way of the plain of *Metropolis* and *Dinæa*; and from *Synnada* to *Beudos Vetus* 5 miles.

Beudos Vetus is taken for *Bayad*, a town on the way from Constantinople to *Iconium*, and whose name signifies *the Ancient*[1]. The ruins called Herjan, taken for those of *Synnada*, are about 5

[1] Otter's Travels, Vol. i. p. 56.

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miles to the SE. of Bayad; and Bulawadin, taken for *Dinæa*, one march short of Herjan, as Livy says of *Synnada*, in respect of *Dinæa*. And, finally, the distance between *Apollonia* and Herjan agrees to three ordinary marches.

The plain of *Metropolis* answers, in this combination of places and distances, to a part of the great plain of *Paroreias Phrygia*, and more particularly to the position, called in Xenophon's march, the plain of *Caystrus*.

At Bayad, we leave Manlius again, being unable to trace him through the rest of *Phrygia* and into *Galatia*. But we cannot dismiss him without remarking the extreme want of discipline in the Roman army at this time. They plundered the different towns in their way, though not in an enemy's country, and were so overloaded with plunder, that, on the day they reached *Beudos Vetus*, they were unable to march more than 5 miles, (Livy, lib. xxxviii. c. 15.) Discipline, therefore, must have been abandoned; and it would appear, by what afterwards passed in the Roman senate, (xxxviii. c. 45,) that the general himself set the example, by laying neutral countries under severe contribution.

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Galatia[1].

GALATIA was situated on the NE. of PHRYGIA, and on the NW. of CAPPADOCIA, in such a way, as to give an idea of its being an encroachment on both. It has been generally understood to have been dismembered from Phrygia *alone;* but it is improbable that Phrygia should have extended so far to the NE., as the extreme limit of *Galatia,* in that direction; but not at all improbable that Cappadocia should have carried its breadth farther to the west. It is probable, therefore, that the *Trocmi,* or eastern tribe of the *Galatians,* seized on the NW. angle of Cappadocia; whilst the *Tolistoboii,* and the *Tectosages,* more populous tribes, seized on the adjoining angle of Phrygia[2].

Galatia was thus bounded by Phrygia and Cappadocia on the west, the south, and the east, whilst it had *Bithynia* and *Paphlagonia* on the north;

[1] It has been said, and perhaps truly, that the European conquerors of Galatia were not *Gauls;* that is, *Frenchmen;* but *Germans,* who had conquered a part of Gaul. It appears, however, that both Livy, and Manlius, who conquered them, in Galatia, supposed them to be the same kind of Gauls with those whom the Romans were accustomed to encounter in Gaul. Manlius's description of them is exactly what has been said on all hands of the modern French. (Livy, xxxviii. c. 17.)

"If you sustain their first onset, which they make with fiery eagerness and blind fury, their limbs are unnerved. We have tried them, not only with our legions, but in single combat." Does this apply to Germans or to French?

[2] See the Map, No. I.

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these meeting nearly in the middle of the north side of Galatia, as the two former in the middle of the south side.

Its form is oblong, and not very irregular; it has an extent of about 210 British miles, from west to east, and more than 100 from north to south. M. D'Anville has very much underrated the breadth of it, which is owing to his having allowed Asia Minor too little breadth, by a degree of latitude.

The northern boundary of Galatia, towards Paphlagonia and Bithynia, is not so clearly defined as could be wished. But it is understood, that the continuation of the *Bithynian Olympus*, under the names of Ala, Koos, &c., is the boundary in question. So that the great valley of Dorek, extending from the *Billæus* river to the *Halys*, belonged partly to *Paphlagonia*, partly to *Bithynia*, but none of it to *Galatia;* although the modern Kangiri, which made a *part* of *Galatia*, includes that part of the valley, heretofore belonging to *Paphlagonia*.

The northern part of Galatia is very uneven, being composed of mountainous ridges, projecting southward from *Olympus;* and there are also two remarkable ridges, the one answering to Mount *Dindymus*, under which *Pessinus* was situated; the other *Magaba*, where the last battle was fought between Manlius and the Gauls. The former ridge lies parallel to the river *Sangarius*, in the west; the other at the *Halys*, in the east; of *Galatia*. The rest of Galatia, particularly to the south and west, consists of plains or uneven downs, destitute of wood, and having mostly a saline soil.

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The tract named *Axylis*, or the *Woodless*, by Livy, occurs in the western quarter of Galatia, parallel to Mount *Dindymus*.

The principal rivers are the *Halys* and *Sangarius*, (see Vol. i. p. 351—353.) The former penetrates Galatia, in a remarkable manner, entering near the SE. angle of the country, and advancing to the centre of it; then turning short, and escaping at the NE. angle, forming the letter V in its course.

The *Sangarius* collects its southern and eastern branches in Galatia, and passes from thence into *Bithynia*, having had on its banks, *Amorium*, *Pessinus*, and *Gordium*.

Galatia was divided into three provinces, answering to the three tribes of the Gauls who possessed it. The Tectosages occupied the central parts, and had *Ancyra* (Anguri) for their capital. The Tolistoboii had the western part, and had *Pessinus*, on the *Sangarius*, for their capital. And the Trocmi, the eastern part, and had *Tavia* for their capital.

The Turkish sanjaks, answering to *Galatia*, are, 1. Anguri, composing the centre. 2. Kangiri (*Gangra*), of which the southern and greater part formed the northern part of *Galatia*. 3. Shurum, composing generally the NE. part. In this, *Tavia* was situated. 4. Lower Haimana formed the southern part of *Galatia*; and 5. an angle of Khodavendkaur, in which *Gordium* was situated, the NW. part. And lastly, the eastern part of Sultan-Oghi, formed the western side of *Galatia*.

The division of *Galatia*, under the Lower Empire,

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was in two parts; of which, *Ancyra* was the capital of the first, or principal; *Pessinus*, of the second.

Ancyra (Ankura, or Angura, at present Anguri,) may be regarded as the former capital of *Galatia*, at large; and was the residence of the chief of the *Tectosages*. In its time it was one of the most flourishing cities of Asia Minor, and was much favoured by Augustus, in honour of whom, inscriptions are still remaining. The remains of Roman architecture are very considerable. (See Pococke and Tournefort.)

It is the most centrical of any of the cities of Asia Minor, and is a great thoroughfare of caravans from the quarters of Constantinople, Brusa, and Smyrna, to those of Syria, Persia, and Armenia. Here is a great manufacture of camblets, made from the hair of a goat peculiar to the country, and which is said to degenerate on its being removed from the district of Anguri itself.

The great Roman road from Constantinople to Syria and Cappadocia, passed through Anguri. (See Book III. Chap. I.)

Pessinus was situated on the river *Sangarius*, on the road from Anguri to Sardis and Smyrna, at the foot of the ridge of Mount *Dindymus*. A village exists in the position named *Possene*, according to André Thevet (1556), but *Bosan*, as given by M. Niebuhr. This city was famous for the worship of *Cybele*, or the Mother of the Gods, and whose idol was removed to Rome, during the second

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Punic war, B.C. 205 [1]. (See Strabo, for Pessinus, p. 567.)

Tavia, the residence of the chief of the *Trocmi* Gauls, falls, by the notices in the Itineraries, midway between Anguri and Tokat. M. Tournefort passed a place named Tekia, in that position, but whether it has any connection with *Tavia* is not known. M. D'Anville places it at *Shurum*. Nothing particular is known concerning it.

Amorium, according to the Theodosian Tables, falls at a point near the ruins of *Balhazar*, or more properly *Balkissa* [2], in the SW. quarter of Galatia, and at a few miles to the right of the road from Anguri to Kara-hissar (Aufium). It lies near the upper part of the course of the Sangarius, and was a very considerable city, till the ninth century.

Gordium, afterwards *Juliopolis* [3], and now Sevri-hissar, was the ancient capital of *Phrygia*, though subsequently it became a part of *Galatia*. It lay on the great road from Constantinople to Ancyra, at an elbow of the *Sangarius*. It was at this

[1] Livy informs us, (lib. xxix. c. 10 and 11,) that "*showers of stones*" had fallen that year, (in Italy, is to be understood,) and that this circumstance led to the demand of the idol at *Pessinus*, which is spoken of, not as a figure, but as a *holy stone*—a stone consecrated to the Goddess Mother. Does not this appear as if the sacred stone itself was one that had originally fallen from the sky?

[2] From the ruins of a palace, said to be that of *Belkis*, or *Balkissa*, queen of Solomon, (Abulfeda.) Pococke places these ruins at 2 hours SE. from Sevrihissar.

[3] Strabo, p. 574; Pliny, v. 32; and others.

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place that Alexander is said to have cut the Gordian knot.

The marches of the consul Manlius in *Galatia* require little explanation. The reader will find them in Livy (lib. xxxviii. c. 18); but between *Beudos Vetus* (Bayad) and the passage of the *Sangarius*, no point in his march can be fixed. He crossed that river over a bridge, (it being too deep to be forded,) at about a day's march above *Gordium*. From thence he sought the army of the Gauls in Mount *Olympus*, and, after defeating them, came to *Ancyra*, which was somewhat more than three marches from the field of battle. Next he proceeded to the mountain of *Magaba*, where he again defeated the Gauls. The former were the *Tolistoboii*, but these were the *Tectosages*, or inhabitants of Anguri, joined with the *Trocmians*, or Gauls from beyond the Halys. This terminated the war. *Magaba* was 10 Roman miles from Anguri, and near the western bank of the *Halys*. It appears surprising that Livy (lib. xxxviii. c. 27) should have known so little of the geography of Asia Minor, as to say, speaking of the neighbourhood of Anguri, that Manlius "was in haste to quit those cold regions, in the vicinity of Mount Taurus," when the Euxine was, within a shade of difference, as near as Taurus. But that it was cold in autumn there is no doubt; all that region is much elevated.

The kingdom formed for Amyntas, secretary to king Deiotarus, by Antony, (a transaction that very much resembles Buonaparte's creations of kings,) appears to have been composed of *Galatia*, at large;

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Pisidia, generally, including the *proper Isauria* and *Derbe;* part of *Pamphylia, Lycaonia, Garsaura* or *Archelais Colonia,* in *Cappadocia;* together with the intermediate part of *Phrygia,* that connected *Galatia* with *Lycaonia.* (Strabo, p. 568.) And it may readily be supposed also, that the intermediate part of *Cappadocia,* that connected *Garsaura* with *Phrygia* and *Galatia,* was included also.

Cappadocia.

Cappadocia originally comprised the eastern part of the great body of Asia Minor, *(above* Taurus); as Phrygia, in like manner, the western part. But the part towards the Euxine being dismembered from Cappadocia at large, during its subjection to the kings of Persia, in order to form a separate satrapy, this took the name of Pontus, or the maritime part; whilst the inland and largest part preserved that of Cappadocia, with the addition of Magna.

The eastern quarter of *Cappadocia Magna,* extending along the course of the Euphrates, obtained, amongst the Romans, the name of Armenia Minor, being separated from the proper or Great Armenia, by the river only; and it appears to have been originally confined to a narrow tract or border; and with indeterminate limits.

But, subsequently, and during the Lower Empire

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especially, it seems to have included the province of *Cataonia, Melitene,* and *Sebaste* (or Siwas); together with the whole tract lying south of the *Iris,* &c. But in the proper view of ancient geography it constituted a part of *Cappadocia;* and was only a name relatively employed.

Under the head of *Pontus,* the common boundary of that and *Cappadocia,* was taken to be the mountains of *Paryadres;* for the whole course of the *Iris,* together with *Zela, Comana Pontica,* &c. belonged to *Pontus.*

However, no accuracy can be pretended to in respect of this boundary: for it is probable that in the division of one province into two, no accurate idea of the new line of separation was ever obtained; or that it often fluctuated.

With respect to the other boundaries of *Cappadocia,* those on the west, towards *Galatia* and *Phrygia,* have necessarily been discussed already, in fixing the boundaries of these provinces themselves. We, therefore, beg leave to refer to pages 98 and 139; only observing here, in abstract, that the salt lake of *Tatta,* now Kodjahissar, stands at the meeting of the common boundaries of *Phrygia, Cappadocia,* and *Galatia;* and that the north part of that lake marks the western, or rather south-western, boundary of *Cappadocia.* That the extreme southern boundary of *Cappadocia* is at the *Lycaonian* or Fudal Baba hills, at no great distance to the southward of the same lake, (pages 98 and 139); which hills, still forming the boundary between *Cappadocia* and *Lyaconia,* advance eastward to a junc-

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tion with the Greater Taurus, near the pass of Cilicia, by *Tyana*. During their course, the province of *Garsaura*, and of *Tyana*, are the frontier provinces of *Cappadocia*, towards *Lycaonia* and *Cilicia*. Then follows the separation of Taurus, into Taurus *proper*, and *Anti*-Taurus, which envelope the Cappadocian provinces, first of *Cataonia*, and next of *Melitene*, which latter extends to the Euphrates, and borders southward on *Syria*. And thus we have the southern boundaries of *Cappadocia*.

The extreme length of *Cappadocia*, from *Phrygia* to the Euphrates, is somewhat more than 280 British miles; having a continuous mountainous border, towards *Lycaonia*, *Cilicia*, and *Syria*.

From this point the eastern boundary of Cappadocia, (which is also that of Asia Minor), is the course of the Euphrates; which being from the north-east, it is obvious that the country of Cappadocia must, at every step, project its length more and more to the east, until it terminates in a sharp angle above *Satala*, where it joins to *Pontus*; so that its extent in this quarter may be 350 miles [1].

The common boundary of Cappadocia and Galatia

[1] The Euphrates has two heads very widely separated from each other. One of these rises near Erzerum, and is named *Frat*; its course is nearly south-west. The other rises in the country of Bayazid, and is named *Murad*. (Pliny, *Omiras*). Its course is less southwardly than the other. The Frat is the Euphrates of Plutarch, Appian, Sallust, and Procopius; the Murad that of Xenophon. The two branches unite at *Anti-Taurus*. The Murad is the largest stream.

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on the NW. is supposed to cross the *Halys* between *Mokissus* (Moushioor or Mosul) and Kirshehir; as on the Roman road near it, between *Andrapa* and *Aspona*[1].

The breadth of Cappadocia is small in proportion to its length; for it is no more than 150 British miles in the widest part, which is between the southern extreme of *Cataonia*, and the mountains of *Paryadres*. Between Taurus, in *Melitene*, and *Kolonia*, it is about 130; but between *Lycaonia* and Galatia little more than 60.

Cappadocia is commonly regarded as being the same division of country as Rûm, or Rumiyah, of the present time; and this is generally true; but the following exceptions are to be made:

The SW. quarter of Cappadocia, namely, *Morimena*, *Camanena*, *Garsaura*, and *Tyana*, under the modern names of Kirshehir, Kisariah, Akserai, and Nigdé, are provinces of Karamania, and not of Rumiyah[2].

On the other hand, Rumiyah contains the whole of *Pontus*; so that it comes nearer to *Cappadocia* in its original state than after the dismembering of the maritime provinces.

[1] *Aspona* 64 MP. from *Ancyra*, on the road to Tarsus, was in *Galatia*. (Amm. Marc. lib. xxv. c. 10.)

[2] Rumiyah owes its name to the circumstance of having continued so long the frontier of the Lower *(Roman)* Empire towards the Saracens; that, with these people, it became the proper name of the province. A parallel case is that of Rûm-Ili *(Thrace)* in a later age, from its having been so long the frontier of Rûm towards the Mahomedan government of Brusa.

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The Turks divide Rumiyah into seven sanjaks; namely, Siwas, Janik, Amasia, Shurum, Bozook, Divrigui, and Arabguir. Aladuli, which is *Cataonia*, and *Meletya*, answering to *Melitene*, both situated between the chains of Taurus and Anti-Taurus, are not classed in the Turkish geography, as belonging to Rumiyah; though unquestionably a part of Cappadocia. Nor is it easy to understand how the Turks class them in respect of geographical arrangement; but in respect of civil government, they were placed under Syria. (Hajy Kalifa.)

The most noted mountains of Cappadocia are *Taurus*, and its members, *Anti-Taurus*, *Amanus*, and the *Lycaonian* ridge towards the south; *Paryadres* on the north; and *Argæus*, an isolated mountain close to the southward of the ancient capital *Cæsarea-Mazaca*. The subject of Taurus and its branches is amply discussed elsewhere[1]; as also that of the *Lycaonian* hills; so that nothing more is required in this place than to refer to those heads for particulars; and to state in abstract here, that the beautiful and extensive valleys which form the provinces of *Tyana*, *Cataonia*, and *Melitene*, which are the frontiers of *Cappadocia*, towards *Cilicia* and *Syria*, are completely enclosed by the members of Taurus; and are a continuation of the series of valleys, of which *Isauria* and *Lycaonia* are a part.

Of these valleys, which, at the same time, severally, constitute provinces, *Tyana* is the first in order;

[1] See Book V. Chapter I.

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and is the smallest of the three. It contains the famous Pass of Cilicia, used by the younger Cyrus, and Alexander, through which led the great road to Cilicia and Syria, from Constantinople, Ancyra, and Cæsarea-Mazaca.

The next is *Cataonia,* a most beautiful and extensive tract, called at present Aladeuli. It is shut up on the SW. by the *Cilician Taurus;* on the SE. towards Syria, also by Taurus, (though Strabo calls it *Amanus);* on the NW. by *Anti-Taurus;* and on the NE. it joins to *Melitene.* Strabo says, (page 535) that it was fruitful in every thing but evergreens. It contained the famous city of *Comana* (of Cappadocia), wherein was a temple of Bellona, with an unheard of establishment of priests, &c.[1] In effect it was a priestly sovereignty. This place is now named Bostan, or the garden; and is situated near the source of the river *Sarus,* which forces its way through Taurus, and gains the sea near Adana. Strabo says that Comana is situated in one of the narrow and deep valleys of *Anti-Taurus;* but this does not agree to the description of Bostan, which lies in the open plain at some distance to the west of Jebel Kurun, or Mount *Taurus;* and very far from the ridge taken for *Anti-Taurus.* This place was visited by our illustrious countryman, Mr. Browne, in his way from Syria to Constantinople. He found

[1] When Strabo visited the place, there were no less than 6000 persons, including the men and women belonging to the priests, and to the service of the temple.

Strabo has entered at large into the description of *Cataonia,* and its environs, (p. 535.)

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the valley to be 50 miles in breadth between Taurus and Anti-Taurus. Strabo calls it a broad hollow valley. Its elevation appears to be little inferior to that of the great upland of Asia Minor.

M. D'Anville includes the city of *Tyana* in *Cataonia.* But this valley is formed by the dividing of Taurus into two separate ridges ; and Strabo informs us, (page 520), that Taurus divides *after* it has formed the vales of Cilicia. Now *Cataonia* is distinct from *Cilicia,* being a prefecturate of *Cappadocia ;* and Strabo speaks of *Tyana,* as a distinct prefecturate of the same country (page 534) ; therefore, *Tyana* cannot be in *Cataonia.* Moreover, had it been so, *Anti-Taurus,* as well as *Taurus,* must have been crossed by Xenophon in his way into *Cilicia.* Ptolemy rightly places it beyond *Cataonia,* and in the province of *Tyana.*

Melitene, which succeeds *Cataonia,* and fills up the space to the Euphrates [1], is said by Strabo, (page 535) to be in every respect like *Comagena,* the northernmost province of Syria ; from which it is separated by Taurus. Modern authors speak of it as being excessively cold, from its great elevation. *Sophene* is in fact a continuation of the same valley, to the east of the Euphrates ; being shut up by *Taurus* on the south ; *Anti-Taurus,* on the north. (Strabo, page 521).

The mountains of *Paryadres* cover Cappadocia on the north, as *Taurus* on the south. Although a

[1] Ptolemy places *Muriana* between the provinces of *Cataonia* and *Melitene.*

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part only of its course is known, yet there can be no mistake in that part which Strabo says, (page 556) was 150 stadia to the north of *Cabira* (or Siwas); for although the distance is greater than is given, yet the ridge of Chumla-Bel answers to *Paryadres* most perfectly; extending between Siwas and Tokat. Strabo connects these mountains on the east with those of *Scydisses*, or *Cydisses*, which cover Armenia Minor and the *Hepta Cometæ* on the north; (page 527 and 549). The *Iris* and *Lycus* rivers are also said to flow from them. (page 556). Here, then, we have the *Paryadres* extending from the north of Siwas to the south of Trebizond. But westward of *Cabira* (Siwas) Strabo says, (page 556) that the mountains are named *Lithrus* and *Ophlimus;* and these we should suppose to be the mountains crossed by Tavernier, midway between the *Halys* and *Iris;* connecting with Chumla-Bel on the west, and with the mountains of Osmanjike on the north. (See No. III.)

But Pliny (lib. vi. c. 9.) says the *Apsoras,* or river of Batum, springs from the mountains of the *Paryadres.* Hence, he calls the *Moschici* mountains, *Paryadres;* and it may be collected, that the ancient geographers were in the habit of generalizing their subjects to too great an extent. Nothing is more certain than that the mountains that contain the heads of the *Apsoras* (the present Shorak) were the *Moschici* mountains. But as Strabo extends the *Paryadres* to the *Scydisses,* which connect eastwards with the *Moschici;* so Pliny, by extension, has made the whole *Paryadres.* But Pliny had, on

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the whole, a very erroneous view of the subject; for he says that the mountains in question separated the Great Armenia from the Less. But the truth the reader is in possession of; that the Euphrates separates the Armenias; and that the mountains above spoken of run across the general course of it.

It may, therefore, be concluded that neither Strabo nor Pliny were sufficiently masters of the detail of the geography to be enabled to describe it with perspicuity.

The mountain of *Argæus* remains to be spoken of. This bears the name of Ardjeh at present; and rises immediately over Kisariah (which is the *Cæsarea Mazaca* of ancient geography) to the south, in a single round mountain of great elevation; but not belonging to any ridge, as has been said. Indeed, both ancient and modern geographers have erred very much in many particulars, in this quarter, as will be shewn. The story of seeing both the Euxine and Mediterranean from this mountain is not to be received as a fact[1]; since the distance from the nearest part of the Euxine is more than 200 B. miles, with ridges of high mountains between. From the Mediterranean it is more than 100. If there be a point in the isthmus, from whence both seas could be seen, it ought rather to be looked for on a summit of Anti-Taurus, near Siwas; but even there, each of the seas are 140 B. miles distant; so that it is altogether improbable.

The principal rivers of Cappadocia are:—1. The

[1] See Strabo, page 538.

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Halys.—2. The *Melas.*—3. The *Sarus.*—4. The *Pyramus.*

The *Halys,* or Kizil Irmak, has been spoken of, very particularly, in the preliminary chapter, to which we beg leave to refer. It is there shewn that the widely extended branches of this river unite within the limits of Cappadocia, and enter Galatia in a collective stream.

The *Melas,* whose origin has been so much misunderstood, as well in ancient as in modern geography, requires elucidation. Strabo believed (page 538) that the *Melas,* which, from the quarter of Kisariah, flows through Armenia Minor into the Euphrates, sprung from the side of Mount *Argæus,* 40 stadia from *Cæsarea Mazaca.* But Mr. Browne instructs us, by means of his route, that the waters for 30 miles to the SE. of Kisariah, flow *towards* Mount *Argæus* and Kisariah. These waters are the heads of the SE. branch of the *Halys;* and the place they flow from is *Anti-Taurus;* which as Strabo says, (page 535) runs in a NE. direction, after the separation of the two chains that embrace the valley of *Cataonia.* Of course, it must be expected that the *Melas* must have its source from the opposite (SE.) side of *Anti-Taurus,* and to take its course through *Cataonia* and *Melitene.* Accordingly, Mr. Browne, before he left *Cataonia,* crossed a river, running to the NE., which we may well conceive to be one of the heads of the *Melas;* or, as it is now called, *Karasu,* or the Black River, as we learn from Mr. John Sullivan, who traced the lower part of its course through the province of *Melitene* towards the Euphrates.

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Mr. Vaughan crossed a river which answers to the *Melas*, a few miles to the northward of Meletyah, (ancient *Melitene*).

Thus, from the physical geography of the country, and the satisfactory proof of the direction of the waters, the *Melas* cannot flow within 40 miles of Kisariah; yet Strabo gives an account of an inundation at *Cæsarea*, caused by the stopping up of the course of the *Melas*; although a ridge of mountains intervenes. That an inundation might have happened in the plain of Kisariah no one will doubt, but the cause must have been different; probably it was occasioned by the heads of the SE. *Halys* [1].

The river *Sarus* is said by Strabo (p. 536) to run by *Comana* of *Cappadocia*, and thence through *Taurus*, into *Cilicia*. Mr. Browne noticed a river at Bostan, taken for Comana; but between that and Bodando, *Podandus*, the particulars of its course are unknown. It is now called the Seihan, and compared by Lucas to the Seine. One would have supposed it to have been very much larger, as Xenophon reckoned it 300 feet in breadth; and as Strabo says that it is a considerable stream before it passes through Taurus.

Strabo also derives the *Pyramus* (Jihan) from *Cataonia* (p. 536); and says that it becomes navigable there. It appears that he had himself visited the outlet of this river, through Taurus. He de-

[1] This circumstance shews that one should not rely too implicitly on the statements of Strabo, when he had no opportunity of viewing a country himself. There are many other errors in his book respecting this quarter.

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scribes it as a vast body of water, collected in the valley of *Cataonia*, which, descending from thence, rushes through Taurus with great violence and noise.

A river of the name of *Carmalus* is also spoken of in *Cataonia*, passing by *Dastarcus* and *Herpa* (p. 537); and in 539 it is said to pass by *Mallos:* consequently, it must be either the *Pyramus* or a branch of it. Strabo describes this river as being formed of more than one branch: and this is also the opinion of Abulfeda, although the Arabian geographers have given no clear ideas on the course of the river in question. From them it appears that one branch comes from the north-east, through the vales of Taurus; and is probably the stream crossed by Mr. Browne, soon after he entered those mountains. But he notes no other stream till he arrives at Bostan *(Comana):* and that river is taken for the *Sarus*. Therefore, the other heads of the *Pyramus* (Jihan) must have their rise from the country to the south-west of Mr. Browne's route; for there is a branch that falls in near Anazarba.

M. D'Anville has placed the source of the Pyramus very near to *Siricis*, a place in the Antonine Itinerary between *Comana* and *Cucusus*, (see p. 212): and the *Carmalus* itself he conducts under *Cucusus*, deriving its source from *Osdara* [1]. This little place

[1] In the arrangement of the Roman stations from the Itinerary and Theodosian Tables, *Osdara* falls, on our construction, nearly 50 miles to the northward of Mr. Browne's route. A stream

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is now named *Kuxon*, and lay a little to the north of Mr. Browne's route: but he mentions no river that might be taken for either of these. Perhaps M. D'Anville had some notices respecting these sources; but as we cannot suppose that Mr. Browne could have passed such rivers without noticing them, we must conclude that their sources are not so far to the north, but that Mr. Browne left them to the southward of him. At the same time they may have been *very near* to *Siricis*, and to *Cucusus*. This particular is therefore likely to remain in doubt.

The subdivision of *Cappadocia* into ten provinces is thus given by Strabo (pages 534, 535), who places five of them at Mount *Taurus: Garsaura*[1], *Tyana*, *Cilicia*, *Cataonia*, and *Melitene*; and five others at large, *Morimena*, *Camanene*, *Sargaurasena*, *Sargavena*, and *Lavinasena*. Those at Taurus it is easy to place, from modern notices combined with Strabo's description of the course of Taurus. But

that had run 50 miles must have acquired some bulk, and could hardly have been passed unobserved by Mr. Browne.

Scarcely any two arrangements can differ more from each other than M. D'Anville's and ours, in this quarter. He possessed the fewest notices possible respecting the actual geography of this tract: and they are but scanty even at present.

[1] In Strabo, p. 534, it is *Isauritis*; but *Garsaura* appears evidently to be intended, and is mentioned elsewhere, particularly in p. 663, which may serve to fix his meaning in the above place. In p. 568 he has *Garsabora*, but by the context *Garsaura* is intended. *Isauria* has nothing to do with *Cappadocia*.

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Pliny (lib. vi. c. 3.) even gives, in direct terms, some of their relative positions; and thus furnishes a number of points in the geography. *Garsaura*, says he, confines on *Phrygia; Cataonia* on *Comagena;* and *Melitene* on *Great Armenia.* And he also says, that *Morimena* joins to *Galatia*, (where the river *Cappadox* [1] formed the boundary); and *Camanena* to *Sargaurasena.*

With Ptolemy, *Sargaurasena* is situated between the *Halys* and the *Iris;* and *Camanena* joins to *Cilicia* (of *Cappadocia*), on the NW.: all which appears probable. *Sargavena* is quite out of our knowledge; but may possibly lie between *Paryadres* and *Anti-Taurus*, as no ancient province is given to fill up that space.

Lavinasena is more difficult to fix. Ptolemy has *Lauiana* on the south of *Melitene*, east of *Cataonia*, and consequently, near Taurus. Strabo (p. 540) mentions a prefecturate of Cappadocia, by the name of *Laniasines;* on the east of which, on a steep rock, was a fortress, whose name in the text is *Dasmenon*, but supposed to be corrupted (as may perhaps the rest of the passage) from *Tzamandrus.* This castle, moreover, is said to have been situated on a mountain, or ridge of mountains, which has its beginning at the extremity of *Comagena.*

Tzamandrus is mentioned by the Byzantine historians; and we are told by Hajy Kalifa, that the celebrated fortress, named, by the Mahomedan geographers [2], Zabothra and Zapetra, on the border of

[1] Perhaps the *Karadash Cesmé* of Tavernier.

[2] Abulfeda, Edrisi, and Hajy Kalifa.

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Comagena, towards *Cataonia,* was also called *Zamaneni.*

A ruined fortress seen by Mr. Charles Vaughan, between Samosata and Marash, agrees to Zabothra completely, as lying between *Comagena* and *Cataonia;* but it does not suit the description of Dasmenon, as not being situated on a steep rock. But Hajy Kalifa probably knew that it was *Tzamaneni* or *Tzamandrus;* and the description may have been heightened. We therefore suspect that the *Lauiana* of Ptolemy, and the *Lavinasena* and *Laniasines* of Strabo, refer to the same province of *Cappadocia;* only that it will make a sixth province adjacent to Taurus, when Strabo reckons only five in the act of enumeration. But he is often in an error; and even his saying that the source of the *Carmalus* was in *Sargaurasena* (p. 537), when that province is *beyond* the eastern *Halys,* shews what an inaccurate view of the subject he took; since not only the *Halys* itself, but *Anti-Taurus,* lay between the *Carmalus* and the province of *Sargaurasena.*

Cappadocia has been so much the scene of warfare in ancient history, that a considerable degree of interest is created respecting many of its cities, and other places of strength. Strabo has said that *Cappadocia* had few cities; and we are inclined to believe that it had fewer than most other countries that were in the same state of improvement.

Mazaca was the capital of this country at the time that the Greeks knew it only from the reports of casual travellers. In the time of the early Roman emperors it took the name of *Cæsarea,* but with the

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addition of its original name. Being situated at a very few miles from Mount *Argæus* (Ardjeh), it has also been denominated from that mountain. It is situated between the two eastern streams of the *Halys*, and within 30 miles of the northern foot of *Anti-Taurus*. It is at present a considerable city, under the name of *Kisariah*, which imitates closely the sound of its former name, under the ancient pronunciation.

Cabira or *Cabeira*. This city afterwards took the name of *Sebaste*, and is now Siwas, one of the principal cities of Asia Minor. Its situation is elevated and cold, at a point where *Anti-Taurus* and *Paryadres* approach each other, and form a kind of gorge : and here the eastern sources of the *Halys* collect into one large stream, called Tûm.

Novus, a stronghold in the same neighbourhood, placed on a projection of *Anti-Taurus*, is now called Yegnidge ; which has in Turkish the same signification as the other, *new*. This was one of the *depots* of the treasures of Mithridates, 18 or 20 miles to the eastward of *Cabira* or Siwas.

Cybistra, now Costere. This place, though remarked by Strabo, is chiefly remarkable on the score of its having been the military station of Cicero, whilst watching the motions of the Parthian army which threatened *Cilicia* and *Cappadocia*, from the side of *Syria*. Strabo places it 300 stadia from *Cæsarea*. Cicero says that at this place, which stood at the northern foot of *Taurus*, he was equally prepared to march into Syria, or Cilicia, which appears to have been true. This place appears in the The-

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odosian Tables; and by a comparison of circumstances, to the SSE. of Kisariah, or *Cæsarea.*

Nora, or *Neroassus,* the retreat of Eumenes, (Strabo, page 537). From its position and description this may be the same place with Develi Karahissar, situated at about 30 miles to the SW. of Kisariah.

Kara-hissar stands on the crest of that chain of hills which connects the *Lycaonian* hills, or mountains, with *Anti-Taurus;* and consists of several distinct fortresses connected together. It may probably be the *Tetrapyrga* of the Theod. Tables. *Nora* is said by Plutarch to have been situated "on the confines of *Cappadocia* and *Lycaonia.*" And it is also said to have consisted of distinct forts, near each other [1]. It is true that it is not precisely on the common boundary of the two provinces, because the district of *Tyana* intervenes: but perhaps the word *confines* is to be taken with some latitude.

M. D'Anville supposes it to have been at *Bour.* But Bour answers to *Baratha,* of the Theod. Tables, and the situation is low and marshy.

Before Eumenes took refuge in *Nora,* he had been

[1] Diodorus (lib. xviii. c. 3.) says, it was on a high rock, very strong, but only 2 stadia in circumference. It was the repository of the treasures of the king of Cappadocia.

In Strabo (p. 537.) *Cadyna* and *Argus Castellum,* "*excelsum ad Taurum,*" are mentioned together, as if near, or in some manner connected. *Cadyna* answers to *Nigdé,* about 30 miles to the SW. of Kara-hissar, the supposed *Nora.* The other may be *Barsbert,* about twice that distance to the SE., and on the very crest of Taurus (Abulfeda, Syria).

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defeated by Antigonus, at *Orcynia* in *Cappadocia*, (Plutarch's Life of Eumenes). He intended at first to retire into Armenia, and was on his way towards it, but was too closely pursued [1]. (Diodorus, lib. xviii. c. 3.)

Comana of *Cappadocia* has been already mentioned in page 161.

Tyana was situated on the *Cappadocian* side of the great pass of Cilicia; and within sight of it. Here was a plain called the Camp of *Cyrus*, probably from the younger Cyrus having encamped there previous to his attempting the pass. It is the *Dana* of Xenophon, perhaps from the Θ having been by accident converted into a Δ; for Arrian tells us, in his Periplus of the Euxine, that the original name of it was *Thoana*, from a king of the *Tauri:* and Xenophon perhaps wrote *Thana*. There are no modern notices respecting the site of this place.

Archelais Colonia was a colony of the emperor Claudius, situated at the *Halys*, or rather that branch of it that flows from *Lycaonia;* properly the southern arm. M. D'Anville took Erekli for this place; but *Archelais* must be at least 50 miles to the north of Erekli: the error was probably occasioned by M. D'Anville's allowing a degree too little

[1] There is a place named Jourkoup, or Yourkoup, at the SE. branch of the *Halys*, below Kisariah. And the Theod. Tables have a place, nearly in the same position, named *Arauenas*.

M. Otter, Vol. i. p. 65, note, reckons amongst the districts of Nigdé, one of the name of *Orkiub*. Develi Kara-hissar is another of its districts. Some have reckoned *Orcynia* a district, not a town.

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in the breadth of Asia Minor, which had the effect of bringing the two positions together: but the latitude of Erekli is now known; and that of Anguri (on which it partly depends) approximated. One of the strongest arguments in favour of our position is, that *Archelais* was in *Garsaura*, a province of Cappadocia; and Erekli is clearly in *Lycaonia*. It agrees to the *Garsaura* of Strabo (p. 663), and appears to be replaced by Akserai. More is said on this subject in the account of the Roman roads, Chap. I. Book III.

Gadasena was a temple of Jupiter, in *Morimena*, with an establishment that was akin to that of *Comana*, there being 3000 persons about the temple, (Strabo, p. 537)[1]. We conceive this place to have occupied the site of Hajy Bectash, a place of Mahomedan worship, on the road from Anguri to Kisariah[2]: it being so often seen that a celebrated place of worship changes the object, or the mode of worship[3].

Melitene, now *Meletyah*. This was a Roman station on the western bank of the Euphrates, which from a camp became a city, and the capital of a province of the same name; and probably derived from the river *Melas*, which flows through it[4]. It lies between *Taurus* and *Anti-Taurus*, and has

[1] See Dr. Gillies on the subject of ancient temples in Lower Asia, [Hist. of the World from Alexander to Augustus, Vol. i. p. 31. *et seq.*]

[2] Mentioned by Paul Lucas and others.

[3] As *Jerusalem*, *Mecca*, *Hierapolis*, in Syria, &c.

[4] M. D'Anville's idea.

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Sophene opposite to it, beyond the Euphrates. It is said to be remarkably cold. Mr. Vaughan observed that there was a *summer* and a *winter* town, at a few miles distant from each other, and we may suppose in appropriate situations. This was the birthplace of Abulpharagius, (Golius, p. 268.)

Nicopolis of Pompey, near Mount *Paryadres*. This city was built to commemorate his victories over Mithridates; and is said to have been near to Kolonia and to the source of the *Lycus*. M. D'Anville takes Divrigui (the *Tephrike* of the Byzantines) for it; but this does not accord with the distances in the Itinerary and Tables, which point to a position much farther to the northward. And it is certain that both *Tephrike* and *Nicopolis* are mentioned at the same time.

Satala was a Roman military station [1] at the NE. extremity of *Cappadocia*, and said to be 20 miles only from the Euphrates, towards the quarter of Erzerûm. A place named Satalmich occurs in the Turkish geography of Rumiyah, but without any notice of position. The general position of *Satala* pointed out by the Itinerary and Tables falls in the line between Erzerûm and Tokat; and near some ruins, of an aqueduct in particular, seen by Tournefort. But M. D'Anville refers it to Erzingan, a place farther to the south, and apparently the *Aziris* of Ptolemy, who has *Satala* also in the same geography.

Sinibra, or *Synoria*, a fortress to which Mith-

[1] A legion was stationed there; the fifteenth.

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ridates retired after his great defeat, cannot be placed. There is a *Sinibra* in Ptolemy, at the place where the Euphrates first changes from a west to a southerly course, in the parallel of Erzerûm: but this does not seem to accord well with the particulars of the history.

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BOOK III.

ROMAN ROADS IN ASIA MINOR.

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CHAPTER I.

ROMAN ROADS IN ASIA MINOR, &c.

Roads leading from Constantinople to Syria.

In the description of the arrangement and direction of these roads, it is not intended to enter into a discussion of every station or town that occurs on them; but, generally speaking, such only as are situated at the commencement or termination of such roads; or which may be centrical to several different roads that branch out from the principal one. An exception, however, is to be made to such places, as may be of importance enough to require a particular discussion; in order that no doubt may be left on the reader's mind. But, with few exceptions, all the intermediate stations will be found in the Map.

Many ancient positions of note can only be fixed by means of these roads; and then, only by a careful examination and comparison of the particulars, when they are, as often happens, corrupted. It has been necessary, also, on some occasions, to call in the aid of other authorities, in order to explain or check the Itineraries and Tables.

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More of these roads are on record than the reader may perhaps imagine. They extend not only over Asia Minor, but into Media, Egypt, and Persia; and to the borders of Scythia and Caucasus. They occur in three ancient documents, which are in most people's hands. 1. The Antonine Itinerary. 2. The Jerusalem Itinerary. And 3. The Tables called Theodosian, and also Peutingerian. Besides these, there are several routes scattered through Strabo and Pliny.

The Antonine Itinerary has routes in every direction, as far eastward as the Roman stations in Armenia Minor, Mesopotamia, Syria, and Upper Egypt. The Jerusalem Itinerary is merely what the title imports; the route to Jerusalem, through Asia Minor and Syria, with some variations and excursions. And the Tables, besides containing the general matter of the others, include routes in Media, Persia, and the intermediate countries. The present enquiry, although confined generally to Asia Minor, is extended to Aleppo, in Syria, on the one hand, and to Trapezus on the other; and also to the intermediate points of Melitene, Zeugma, and Satala, in order that the roads might terminate in stations of note.

Some of the roads in the Antonine Itinerary are so circuitous, that they can only be regarded as a number of separate routes, from one station to another thrown together in one Table. And these we have considered as so many distinct routes.

The reader will be pleased to understand, that these routes are not employed in forming the context of the geographical construction of the Map,

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(that being already done by means of modern authorities); but are only applied to, or grafted on, that construction. They serve, however, in many instances, to corroborate the truth of the original construction.

It is necessary to state, that although every route that could be made out, or understood, is inserted in the Map; yet there are some of these, that it was thought unnecessary to specify in the discussion.

Those ancient stations, which do not coincide with any known modern ones, are marked by a *dot* alone. It sometimes happens that the *dot* falls very close to a modern station; although it does not coincide with it, as in the instances of *Docimæum* and Bar-dukly, *Tavia* and Tekia. Although in these, and other instances, there can scarcely be a doubt, but that they were, respectively, the same places; yet it was judged proper to place the ancient site conformably to the actual result.

Of the Roman Roads through Asia Minor, the first proposed to be examined are those which lead from Constantinople to SYRIA; of which there are three:—

1. By *Ancyra* (Anguri) and *Tarsus*, to ANTIOCH, *round* the gulf of *Nicomedia*. This is the northernmost road of the three.

2. *Across* the gulf of Nicomedia; and by *Dorylæum*, *Synnada*, *Laodicea Combusta*, &c. falling into the former at *Tyana*. And

3. A branch of the first, through *Cæsarea Mazaca*, to *Comana* of Cappadocia, and *Samosata*, to *Zeugma* on the Euphrates.

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As all the three roads have a lateral communication with each other; and also *run into each other* occasionally; it will be proper to consider all the three under the same head of investigation [1].

---

1. *By Ancyra.*

Nicomedia is recognised in the present Is-Nikmid, at the head of the gulf of the same name; and which penetrates deeply into the land; but forms a narrow neck at the entrance from the *Propontis*. It was there crossed by a ferry in ancient times, between *Libyssa* and *Pronectus*, as in the present between Dil and Hersek; thereby affording a direct road to *Nicæa*, (Is-Nik) whilst that by *Nicomedia* is very circuitous.

The positions of all these places will be found in the Map; and the Roman distances, in the different Itineraries, &c. agree generally.

The Antonine Itinerary has 65 MP. between Constantinople and Nicomedia.

The Jerusalem, 61; and the Theod. Tables, 60.

And between Nicomedia and Nicæa the Antonine has 42; the Jerus., 41. The Tables are deficient; but they shew that the ancients had a direct road

[1] The reader is referred to the Map of Construction, No. X., for the delineation of the Roman roads, applicable to the present discussion: but they are also delineated on the Maps of the Comparative Geography.

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across the neck of the gulf, (although the numbers are imperfect), between *Libyssa* (Ghebissa) and *Pronectus*, (taken for Karamousal.) The distance was shortened 24 MP. or Roman miles, by the direct course.

The ferry must necessarily be rendered impracticable to common boats in strong westerly winds; and in this case, the rounding of the head of the gulf would be resorted to. And to those whose object was to go to Nicæa, Brusa, &c. these routes appear perfectly consistent; but it is unaccountable that the road from Nicomedia, through Asia Minor, to Syria, by way of Ancyra, should have led through *Nicæa; so wide* from the line of direction. But it is certain that all the three authorities above named carry the road from *Nicomedia*, through *Nicæa*, and *Chogæ*, to *Protamacra* (in modern geography, from Is-Nikmid, through Is-Nik and Lefke, to Yeywa); although Yeywa is only 40 Roman miles, *by the road*, from Is-Nikmid, whilst the circuit by *Nicæa* is 95! One is only left to suppose, that the lofty mountain of Gok-dag, (mountain of the *skies)*, which, with its base, extends across from the *Propontis* to the *Sangarius*, was practicable only in the line between *Nicomedia* and *Nicæa*, in a military point of view; (for in this view, certainly, these roads are to be considered generally); and that it was not convenient to place the bridge (the *Pons Sangarii)* higher up than *Protamacra*, or Yeywa.

There is, however, a *modern* road from Yeywa to Is-Nikmid, coasting the western bank of the *San-*

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garius; and thence to the lake of Sabanja; and probably existed at all times for the use of ordinary travellers. Mr. Browne, as well as Paul Lucas, went by that road [1].

Anguri is found to answer unequivocally, in position, as well as in name, to *Ancyra* of Galatia; a city of considerable note in all ages of history. It happens, unfortunately, that the distances between it and *Nicæa* are corrupted in several places in all the three Itineraries. Still, however, by the aid of Mr. Browne's Journal, and occasionally by those of former travellers, and a careful comparison of these with the Itineraries, the different positions may be made out.

The Tables [2], and the Antonine Itinerary, give 9 to 10 stages only between *Nicæa* and *Ancyra;* of which the Jerusalem Itinerary, more detailed, makes no less than 21. Moreover, each of them introduce a station (or more) that is not to be found in the others.

[1] Circuits of a most extraordinary kind are likewise found in other places in the same Itinerary; in the roads of Asia Minor and Armenia Minor. They might have been made up of ordinary roads, leading from one large town to another, without any view, originally, of a communication between distant places; and afterwards improved and made use of as portions of the general road. Be it as it will, these roads differ essentially from the Roman ways in Europe; and in nothing more than in the degree of *winding;* which, as is proved by the general result, was fully equal to that of ordinary roads in unimproved countries; and equal to about a *ninth part* of the *road distance.*

[2] Meaning the *Theodosian,* or *Peutingerian.*

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Since then, no conclusion can be drawn from *any one* of these documents *singly*, we must endeavour, by a comparison of the parts throughout, to obtain a satisfactory result.

It happens that the ancient documents have *five* of the stations *common to all*, between *Nicæa* and *Lagania*, (or *Bagania*[1]); that is, between Is-Nik and Bekbazar, or Begbazar.

The first interval is between *Nicæa* and *Tottaium*, for which the Antonine gives 44 MP.; the Jerusalem, 46; and the Tables, 40; mean of the three, $41\frac{1}{3}$ Roman miles.

The second, from *Tottaium* to *Dablæ*, or *Dablis*, is for each of the authorities, respectively, 28, 29, and 23; mean, $26\frac{2}{3}$.

The third, from *Dablæ* to *Dadastana*, is, in like manner, 45, 22, and 40; but as the 22 of the Jerusalem Itinerary is manifestly a corruption, we reject it, and take the mean of the two others at $42\frac{1}{2}$.

The fourth is from *Dadastana* to *Juliopolis*; (originally *Gordium*[2]), respectively, 26, 25, and 24; mean, 25. And

The fifth and last, from *Juliopolis* to *Lagania*; in which are, respectively, 24, 24, and 50; but here, as in the former instance of the Jerusalem Itinerary, the 50 of the Tables must be rejected as a corruption; and then the mean of the other two will be 24[3].

[1] It is *Bagania*, or *Baganeos*, in most of the copies.

[2] Strabo, page 574; and Pliny, lib. v. c. 32.

[3] The following Table is calculated on the mean distances

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The remaining part of the road, from *Lagania* to *Ancyra*, is given so differently in the different Itineraries, that it requires a separate discussion. It is as follows:—

Antonine	75
Jerusalem	41
(with an omission of the number of the last stage.)	
Theodosian Tables	66

The mean of course is absurd.

If 12 be taken for the stage omitted (as the 3 preceding stages amounted to 35) the Jerusalem may be taken at 53; not an improbable result; since it may be suspected that the Antonine has an excess of 17 in the 75; and that 58 may be substituted for the 75. For the Jerusalem has only 16 between *Lagania* and *Mnizos;* which is 23 in the Antonine. And in the next stage, to *Manegordo*, this latter has 28 in the text, but one of the copies has only 18. Accordingly, this correction gives 34; and the Tables have 38 between *Lagania* and *Mizago;* probably intended for *Manegordo*. The remaining stage in the Antonine Itinerary is 24 to *Ancyra;* (28, in the Jerusalem, from *Mizago*).

given; in which the differences between them, and the Map, never exceed 2 miles on any of the five intervals.

Ancient Names.	Modern.	R. M.		G. M.	Map. G. M.
Nicæa to Tottaium,	Akhissar,	$41\frac{1}{3}$	equal to	$29\frac{1}{2}$	$28\frac{1}{4}$
Dablæ,	Terakly,	$26\frac{2}{3}$	—	19	$20\frac{1}{2}$
Dadastana,	Costabek,	$42\frac{1}{2}$	—	$30\frac{1}{3}$	$28\frac{1}{2}$
Juliopolis,	Sevrihissar,	25	—	18	20
Lagania,	Bekbazar,	24	—	$17\frac{1}{4}$	$18\frac{1}{2}$
	Total	$159\frac{1}{2}$	—	114	$115\frac{3}{4}$

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Take the 34 to *Manegordo,* and add the 24 to *Ancyra,* the sum is 58. And take also the 41 of the Jerusalem, and add 12 for the last stage to *Ancyra,* the result is 53; differing from the other only 5 Roman miles; or less than 4 G. miles.

If a mean be taken between the 58, 53, and the 66 of the Tables, it will be 59 Roman miles.

In the geographical construction of Asia Minor, (Vol. I. p. 261), it appears that Bekbazar is placed by the authorities given at $38\frac{1}{2}$ G. miles from Anguri; answering to 54 Roman miles, reduced to direct distance. This approaches so nearly to the mean of the results; but particularly to that of the *two first;* that no doubt can be entertained that *Lagania,* or rather *Bagania,* is the same with Bekbazar. We proceed, therefore, to the consideration of the larger portion of the road between this place and *Nicæa.*

Taking the sums of the several *means* above stated; that is, from *Nicæa* to

Tottaium . . .	$41\frac{1}{3}$ MP.
Dablæ	$26\frac{2}{3}$
Dadastana . . .	$42\frac{1}{2}$
Juliopolis . . .	25
Lagania	24
Total	$159\frac{1}{2}$

These are equal to nearly 114 Geog. miles; and the trace of the road through Lefke, Yeywa, &c. gives 116 nearly. If taken *direct* from *Nicæa* to *Lagania,* the distance is $106\frac{1}{2}$ G. miles, equal to 149 Roman miles, or $10\frac{1}{2}$ short of the mean distance.

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But as the road led through Yeywa, (or *Protamacra*), it agrees within 2 or 3 miles [1].

It is here taken for granted, that the passage of the *Sangarius* was at Yeywa, as being the ancient *Protamacra*, situated on the northern bank of the river. At this place, there is a permanent bridge. Here also the roads branch off to Constantinople (through Nicomedia) to the NW., and to Nicæa to the SW. Yeywa, moreover, stands at the same proportion of distance from Nicæa and Anguri respectively, as *Protamacra* did of old; and this is also the case of six other stations along the road, as may be seen by the following table:

Ancient Names.	Modern.	R. M.		G. M.	Map G. M.
From *Nicæa* to *Chogæ*,	Lefké,	21 equal to		15	15
Tottaium,	Akhissar,	19	—	$13\frac{1}{2}$	$13\frac{1}{4}$
Protamacra,	Yeywa,	11	—	$7\frac{3}{4}$	7
Dablæ,	Terakly,	18	—	13	$13\frac{1}{2}$
Cænon Gallicanon,	Goinek,	[2] 24	—	$17\frac{1}{4}$	[3] 12
		93	—	$66\frac{1}{2}$	$60\frac{3}{4}$

[1] The total of the numbers, in each of the Itineraries, between *Nicæa* and *Lagania*, or Bekbazar, is as follows:—

The Antonine	167 MP.		
Jerusalem	140		
Theodosian Tables . .	177	Mean . .	$161\frac{1}{3}$
The sum of the five means			$159\frac{1}{2}$
And the Map, from Mr. Browne's authority, gives .			163

[2] A branch of the same road leads from Terakly to Tourbalé, and thence to Costabek. Tourbalé, by the distance given, should be exactly opposite to Goinek.

[3] The distance on the Map, between Terakly and Costabek, is $28\frac{1}{2}$ G. miles, equal to 40 Roman miles. But the Antonine

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Ancient Names.	Modern.	R. M.		G. M.	Map G. M.
Brought forward,		93		$66\frac{1}{2}$	$60\frac{3}{4}$
Dadastana[1],	Costabek,	21	equal to	15	$16\frac{1}{2}$
Milia,	Nooli Khan,	17	—	$12\frac{1}{4}$	$14\frac{1}{2}$
Juliopolis,	Sevrihissar,	8	—	$5\frac{3}{4}$	$5\frac{1}{2}$
Lagania,	Bekbazar,	24	—	$17\frac{1}{4}$	$18\frac{1}{2}$
		163	—	$116\frac{3}{4}$	$115\frac{3}{4}$
Mnysus, also *Therma,*	Aiasse,	23		$16\frac{1}{2}$	$38\frac{1}{2}$
Manegordo,		19		$13\frac{1}{2}$	
Ancyra,	Anguri,	12		$8\frac{1}{2}$	

N.B.—The detail is from the Jerusalem Itinerary chiefly.

The documents, on which these comparisons rest were furnished by my friend Mr. Browne, whose accuracy is unquestionable. So many coincidences would hardly have fallen out from accident. The circumstances which have occasioned the passage of the *Sangarius* to be placed so far out of the line, between *Nicæa* and *Ancyra,* are not known; probably the position of the ridge of mountains (continuation of Olympus) and its projections. But, after all, the *detour* is little more than 10 miles in about 160.

Itinerary gives 45; the Tables, 40; and the Jerusalem, only 22; (an error no doubt). So that the Tables agree with the geographical construction.

[1] *Fines,* the limit of *Galatia,* towards *Bithynia,* was 6 MP. *short of Dadastana;* and *Hycron Potamus,* answering to the torrent now called Giumleksiz, is 13 *beyond Juliopolis,* or *Gordium.*

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The only article in doubt is *Cœnon Gallicanon*, which appears *only* in the Antonine Itinerary. Such a place, however, existed, as it is mentioned by Ammianus. The Jerusalem seems to have omitted it, for it gives no more than 22 MP. between *Dablæ* and *Dadastana*, whilst the others have 40 and 45. Another doubt is, whether Goinek represents it, as the Antonine gives 24 MP. from *Dablæ*, and Goinek is not more than 17 from Terakly. In another note, we have displayed the different stages given by the three documents, so that they may be readily compared with each other [1], and the errors and omission become more palpable.

From *Ancyra* [2], the road to SYRIA lay through Galatia and Cappadocia, by way of *Parnasus*, *Archelais Colonia*, and *Tyana*, at the northern foot of Taurus, and then, crossing Taurus, it passed through Cilicia to Tarsus, and the Syrian strait, to

[1]

THEOD. TABLES.	Degrees.	JERUSALEM.	Degrees.	ANTONINE.	Degrees.
Nicæa . .	40	Nicæa . .	40	Nicæa . .	44
Tottaium .	23	Tottaium .	29	Tottaium .	28
Dablæ . .	40	Dablæ . .	22	Dablæ . .	24
				Cœnon Gal.	21
Dadastana	24	Dadastana	25	Dadastana	26
Juliopolis .	50	Juliopolis .	24	Juliopolis .	24
Lagania		Lagania		Lagania	
	177		140		167

[2] *Ancyra* is spoken of under the article *Galatia*, in page 153.

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Antioch. A road from *Parnasus* branched off to *Cæsarea* of Cappadocia, and thence to *Zeugma*, on the Euphrates.

Parnasus, *Archelais*, and *Tyana* are points unknown in modern geography, and therefore can only be approximated by ancient authorities.

Archelais Colonia is 149 MP. from Ancyra, in the Antonine Itinerary, and in the Jerusalem, 162, or 13 more. The Tables are imperfect. On comparing the intervals of distance in the two Itineraries, it appears that Parnasus is 87 in one copy of the Antonine; 84, in a second; and, in the Jerusalem, 99, from Ancyra. *Aspona*, on the same road, is 62 and 63, in the Antonine; 64, in the Jerusalem. And Parnasus being 22 to 24 beyond Aspona in the Antonine, but 35 in the Jerusalem, one may justly conclude that 35 is an error, in excess, of 12 or 13 miles, and that *here* the great difference between the two Itineraries lies. Consequently, that 146 to 149 may be taken, and the larger number, perhaps, in preference.

That number, 149, is equal to 106 Geogr. miles; and this is taken for the *direct* distance of *Archelais* from *Ancyra*. And *Parnasus*, intermediately, at 87 MP., equal to 62 G. miles.

The road from *Parnasus* to *Cæsarea*, in the Ant. Itin., is 114 MP., equal to 81·4 G. miles, which fixes Parnasus in a south-easterly bearing from Ancyra, and, as will appear afterwards, nearly in the direct line between *Ancyra* and *Archelais*.

Strabo (p. 663) gives a line of distance, from Ephesus to *Tomisa*, on the Euphrates; one portion

of which leads from *Tyriæum*, (a station in the route of the younger Cyrus,) through *Laodicea Combusta, Coropassus,* and *Garsaura* to *Cæsarea Mazaca,* and passing nearly through the point of distance given for Archelais, from Ancyra. That portion of the line just mentioned is given at 1740 stadia, and of this space, 1060 are between *Tyriæum* and *Garsaura,* and 680 between *Garsaura* and *Cæsarea ;* that is, Garsaura is 1060 parts of the 1740, to the eastward of *Tyriæum.*

Now *Garsaura* was the province of Cappadocia, in which Archelais *afterwards* stood [1], (for it was founded in the reign of Claudius,) and appears to have been the capital of the district, as Garsaura doubtless had been, and therefore is to be considered as the same place, under different names. If, therefore, the proportional part, 1060, of the 1740, be laid off from *Tyriæum,* to meet the line of 106 G. miles from *Ancyra, Garsaura,* or *Archelais,* will fall in a position 90 G. miles to the eastward of *Tyriæum,* 61½ west of *Kisariah,* or *Casarea* [2].

This is also the general position of the modern city of Akserai, placed by Abulfeda at 4 days E. of Kuniyah ; 3 W. of Kisariah. So that Akserai occupies the site of one of the above places, or has succeeded to them, as the principal place of the dis-

[1] Ptolemy.

[2] *Tyriæum,* in the march of Cyrus, was three marches, strictly 31½ G. miles, short of *Iconium,* or Kuniyah ; whence its position on the Map falls a little to the NW. of the present Kadunkan.

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trict. There is said to be a considerable river at Akserai, which answers to the southern *Halys*, or Kizil-Irmak [1]; and Pliny says that the *Halys* ran by *Archelais Colonia* [2].

M. D'Anville supposed the modern Erekli to be Archelais; but we have given reasons for supposing otherwise, under the heads of Archelais and Erekli, in treating of the countries of Cappadocia and Lycaonia. (See p. 173.)

It may be remarked, that Parnasus, whose longitudinal position is determined by the distance from Cæsarea, in the Antonine Itinerary, falls in the same line of direction from Ancyra as Archelais, whose longitude is determined by a different authority.

From *Archelais Colonia* the road turns more to the eastward, to *Andabalis* and *Tyana;* the latter situated at the northern foot of the great ridge of Taurus. Andabalis is recognised in Anabil [3], situated on the road from Kisariah to Tarsus and Adana, and which is found in the position that Andabalis would be looked for. For, as it is given in the Jerusalem Itinerary, at 91 MP. short of Tarsus, on the road from Ancyra, (that is, 16 short of Tyana, which is itself 75 from Tarsus,) so Anabil will be found to occupy the same position as *Andabalis*. But, for the satisfaction of the reader, it will be necessary to set forth the authorities in detail.

[1] Abulfeda, Tab. XVII., Rûm, "*habet magnum fluvium qui mediam* ipsam subit."

[2] Lib. vi. c. 3.

[3] This was communicated by M. Niebuhr, who collected a great number of routes in Asia Minor.

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Develi-Karahissar is a cluster of small forts, situated on a ridge, which is a continuation, eastward, of the *Lycaonian* hills, or Fûdal Baba, and equally a continuation, westward, of the ridge of *Anti-Taurus*. It is, in effect, the northernmost member of Taurus; the first ridge of mountains that occurs in going southward from the great plain of Galatia and Cappadocia. This is particularly mentioned, because Karahissar appears to command a pass, at which the roads from Kisariah to Iconium and Tarsus separate. This place is 13 hours' travelling from Kisariah, and to the SW. Anabil occurs on the road going towards Tarsus, at 6 hours from Karahissar; and, at Anabil, the road again separates into two; one leading to the SW., over the wide part of Taurus, by Koi-Altee and Isli Keller, and finally descending at Geulek castle [1], opposite Tarsus; the other to the SE., by Tyana, where Taurus is diminished to a single ridge, and where the famous pass of Cilicia is situated.

The parallel of Anabil has been in this manner approximated, by the distance from Karahissar, on one side; Tarsus, on the other; but its longitude can only be regulated by a reference to that of *Tyana*, which is itself derived from the marches of Xenophon from Iconium, and from its distance from *Baratha*, in the Theodosian Tables; admitting Bour to represent it; and as it really appears to do so, as will be shewn presently, we consider this line of distance as highly satisfactory [2].

[1] M. Niebuhr.

[2] The reader is again referred to No. X.

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Bour, as well as Karahissar, lies in the direct road from Kisariah to Erekli; and, as the name *Baratha* implies marshes, or marshy lakes, so we find in Hajy Kalifa, that there is a lake in the neighbourhood, by the term *Geul Bashi*, or head of the lake. *Baratha*, in the Theod. Tables, is 39 MP. from *Tyana*, and, as the context requires, westwards.

Tyana is thus placed. The Jerusalem Itinerary has 75 MP., between Tyana and Tarsus. The Antonine is imperfect, but agrees within 2 miles in 63 with the other; that is, as far as it goes; for we regard the *Namsucrone* of the one, and the *Mansuerine* of the other, as intended for *Mopsucrene*[1]. Xenophon has 25 parasangas, equal to 75 MP., (as his scale throughout answers to 3 MP. to a parasanga.) Thus there are two authorities that agree in fixing the distance at 75 Roman miles.

There is also, as mentioned above, a road used by travellers, between Tarsus and Kisariah, which ascends the pass of Geulek, and traces back the road from Iconium, as far as Iailak, and the bridge of Ak-kupri, and goes from Iailak, in 27 hours, caravan travelling, to Anabil. The stages on this road are Isli-Keller and Koi Altee[2]. The trace on the map, supposing the road to pass the bridge of Ak-kupri, (which is probable, as it is over a torrent, called the

[1] *Mopsucrene*, or *Mopsi fons*, occurs in Ptolemy, between *Padiandus (Podandus)* and *Tarsus*. And in Ammianus, (lib. xxi. c. 15.) most clearly, "a station beyond Tarsus, at the foot of *Taurus*."

[2] These and other details of the geography of this quarter were most obligingly communicated by M. Niebuhr.

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Forty Sources, and as bridges seldom occur in this part of the world,) is 48 G. miles, which is too little for 27 hours, on ordinary roads, but accords with the proportion allowed in crossing the same mountain (Taurus) between Erekli and Tarsus. So that we have here a slight confirmation of the former reports, as the distance between Anabil and Tyana is known. But still, we are in the main dependent on ancient authorities for the position of *Tyana.*

Xenophon made 55 parasangas, or 165 MP. from *Iconium* to *Tyana,* (for that is the place *meant,* although it be called by him *Dana,* and which we have attempted to explain in p. 173.) These are equal to 117¾ G. miles, in direct distance; and the meeting of this line of distance with that of 75 MP. from Tarsus, equal to 53½ G. miles, places Tyana somewhat to the W. of N. from Tarsus; and to the W. of S. from Kisariah; and nearest to the latter. It then appears, that the space between this position of *Tyana,* and of Bour, taken above for *Baratha,* is 28·6 G. miles; and the 39 MP. are equal to 27·8: so that it may be presumed that Bour represents *Baratha;* and that *Tyana* has its position well approximated; and that is all that can be attempted or pretended.

It may be added, that the point at which Menon was dispatched into *Cilicia* by the shortest road, should have been at no great distance to the NNW. of Erekli; and the distance, being 25 parasangas from thence to *Tyana,* also agrees.

A second check to the position of Tyana is a route in the Theodosian Tables from *Amorium,* whose

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ruins, called *Balhazar*, or rather *Balkissa*, are situated at 4 or 5 miles to the SE. of Sevrihissar, a town in the road from Karahissar (Aufium) to Anguri, about 30 hours short of the latter, on the authority of Pococke and Hammer.

The route in question leads from *Amorium*, through *Petra* or *Perta* (found also in Ptolemy), on the frontier of *Lycaonia;* and thence through *Saluberima* and *Cadyna* (taken for Nigdé) to *Tyana;* the aggregate distance being 246 MP. or Roman miles. This line is divisible into two portions: the first to *Petra*, or *Perta*, 137; the second to *Tyana*, 109.

Petra, in Ptolemy, is $15\frac{1}{2}$ G. miles to the northeastward from *Sanatra*, taken for the *Sabatra* of the Tables, and the *Soatra* of Strabo, in *Lycaonia*.

Sabatra is placed, on the authority of the Tables, at 56 MP., equal to 40 G. miles, from *Laodicea Combusta;* 44 MP., equal to $31\frac{1}{2}$ G. miles from *Iconium*, to the NE. And hence *Petra* may be taken at $46\frac{1}{2}$ G. miles to the NE. by E. of *Iconium*, or Kuniyah. Here, then, we have the term of the first portion of the line, by the intersection of $97\frac{3}{4}$ G. miles, the produce of 137 MP. by the $46\frac{1}{2}$ from Iconium.

Hence it appears, that the road in question, from *Amorium* to *Tyana*, has a great *bend* to the south; for had it been straight it would have passed nearly through *Archelais Colonia;* but as it is, it passes nearly 13 miles to the southward of it; as the Tables give 20 MP. between that place and *Saluberima*, which lies obliquely from it.

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The second portion of the road, between *Petra* and *Tyana*, 109 MP., is equal to 78 G. miles: so that the two portions collectively are 175½ G. miles. The construction actually allows 177: so nearly do two results, arising from authorities totally distinct, and independent of each other, agree. Thus, all the authorities agree in placing *Tyana* in the same *general* position.

Tyana being thus placed, in respect of *Tarsus* and *Iconium*, from authorities perfectly distinct from those on which *Archelais* and Develi-Kara-hissar rest, it will now be proper to examine how it stands, in respect of these places, on the construction. In the first place, it is there 54½ G. miles to the SE. by E. of *Archelais*, whilst the Itineraries give 80 to 81 MP., equal to 57½ Geographic[1]. But *Andabilis* (Anabil), which is 16 MP. short of Tyana, appears to be a point common both to the *Ancyra* and the *Cæsarea* roads; and, therefore, most probably, lies at an angle with the rest of the road, or more to the northward. So that the given distance between Archelais and Andabilis, which is from 64 to 65 MP., say 46 G. miles, may agree very well. But even had the whole line been straight, the difference would have been no more than 3 miles. Thus Tyana is also satisfactorily placed, in respect of *Archelais Colonia*.

And with respect to the relative position of *Tyana* to Karahissar, the distance on the construction is

[1] The Antonine gives 81; the Jerusalem, allowing for the omission of the last stage, 80.

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24¼ G. miles. Anabil, being here also the medium of communication, 11¼ G. miles must first be taken out for the 16 MP., and there will remain 13 for the distance of Karahissar from Andabil. And it being, by M. Niebuhr's account, 6 hours of caravan travelling, this agrees very satisfactorily also. And, upon the whole, there seems to be no reason to doubt the general consistency of the whole suite of positions, in this quarter.

There is, however, a particular that appears to disagree with the statement of the distance between *Archelais* and *Tyana*. *Saluberima*, or *Salabria*, before-mentioned as a station in the Roman road from Amorium to Tyana, is stated in the Theodosian Tables to be only 20 MP. from Archelais, towards Tyana, although *Saluberima* itself be no more than 48 from the latter, making it no more than 68 MP. between Archelais and Tyana, whilst the Itineraries allow 80 to 81; which, if true, would have the effect of reducing the direct distance by at least 6 miles. However, as all the other authorities are in harmony, we have left this matter as we found it, thinking the bare mentioning it sufficient.

M. D'Anville thought very differently with respect to the position of *Tyana:* for, as we have placed it rather to the W. of N. from Tarsus, he has placed it full north-east. This is another consequence of the error pointed out above, where Asia Minor is said to be one full degree of latitude *too narrow* in M. D'Anville's map.

There is no check whatsoever to the position of Tyana from the eastward.

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The position of *Tarsus*, in respect of *Tyana*, has been already mentioned (p. 196.) at 75 MP., or 25 parasangas of Xenophon's standard; which agree precisely with the other, and are equal to 53½ G. miles. Tarsus then bears a very little to the east of south from Tyana; although the general direction of the road from Constantinople to Syria is to the eastward of SE. This is occasioned by the situation of the pass of Mount Taurus, a detour being made to the east, to avoid the wider and rougher parts of it.

From Taurus to Syria the road first leads due east, and then south, round the gulf of *Issus*, or Scanderoone. The distance on the first course is about 80 MP. to the head of the gulf; and thence 62 to Antioch, through the passes of Cilicia and Syria, situated in Mount *Amanus*.

Antioch was then the capital of Syria; and the road from thence to Aleppo, or *Beroea*, led first obliquely to *Chalcis*, now Kinneserrin, 53 MP.; and thence to Aleppo, 18.

The roads from Tyana to Syria will be detailed in the account of the Syrian and Cilician passes, Book V.

The Antonine Itinerary is defective between *Mopsucrene* and *Ægæ*, near *Castabella*. By its passing *Ægæ*, one may suppose that it described a *southern* road from Tarsus to *Castabella* (or *Catabolo*), which is the road followed by Alexander, through *Mallos*, &c.; whilst the Jerusalem Itinerary leads to the northward of the other.

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2. *By Dorylæum, Synnada, and Laodicea Combusta, to Tyana; the southern road of the ancients, to Syria.*

We owe the notices respecting this road to the Theodosian Tables; but it is imperfectly given, owing to great omissions of numbers and stages.

It branches off from Nicæa, or rather from *Chogæ* (Lefké) to *Agrilium* and *Dorylæum*. *Agrilium* is not known; but *Dorylæum* is, without doubt, Eski-Shaher, or the *old city;* although no more than 59 MP. are given, where 80 are required [1]. A route in the Antonine Itinerary, from *Dorylæum* to *Ancyra*, gives 141 MP., which agrees exactly with the space on the construction. And the circumstance of there being a Roman road from *Nicæa*, leading through *Dorylæum* to *Synnada* and *Philomelium*, is a strong presumptive proof of the identity of *Dorylæum* with Eski-Shaher. In effect, it has never been doubted.

From *Dorylæum*, the road led through *Docimæum*, *Synnada*, and *Philomelium*, to *Laodicea*. The numbers are totally wanting between *Dorylæum* and *Docimæum*, two stages. But the latter is easily recognised in Bar-dukly, a town situated 30 miles beyond Eski-Shaher, and where there are many

[1] The errors of the Tables appear to be occasioned more by the omission of whole stages than the corruption of numbers given.

Grecian ruins. Thus far the ancient and modern roads coincide, all the way from Constantinople : but here the ancient road leaves the modern to the right, or southward, during the space of 127 MP. to *Laodicea;* in which point alone they again meet. The ancient road goes on a straighter line than the other, which makes a deep bend to the west, at Sakli, passing Bulawadin *(Dinæa)* and Akshaher.

The distance from Bar-dukly to *Ladik* (Laodicea), 127 MP., equal to 90½ G. miles direct, agrees precisely with the construction ; and it is therefore to be regretted that the other numbers are either omitted or corrupted.

Synnada, which was a flourishing city in the time of Cicero, is, with reason, supposed to have been at the site of the ruins named Herjan, situated at a few miles to the SE. of Bayad ; which is, without doubt, the *Beudos Vetus* of Livy[1], 5 MP. from *Synnada,* [to the NW.] The modern road passes through Bayad.

The Tables give 32 MP. between *Docimæum* and *Synnada,* which agrees exactly to Bar-dukly and Herjan : and, was there any doubt respecting the position of *Synnada,* the circumstance of the relative positions of *Dinæa, Synnada,* and *Beudos Vetus,* respectively recognised in Bulawadin, Herjan, and Bayad, (which itself signifies *the ancient,)* would satisfy a reasonable person.

Without these notices in Livy, *Synnada* could not

[1] Lib. xxxviii. c. 15.

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have been placed with confidence; in which case the positions of *Celænæ*, *Apamia-Cibotus*, and *Antiochia* of *Pisidia*, would have remained in great doubt.

From *Synnada*, the road led successively through the stations of *Juliopolis* and *Philomelium* to *Laodicea (Combusta)*, in three stages of 32, 35, and 33 MP.; and, although avoiding the present road by Sakli and Akshaher, yet kept through the same valley or plain of *Phrygia Paroreias*. The route of Xenophon, from Kutahiah (or the *Ceramians)*, lay exactly in the line of the present road.

From *Laodicea*, where the modern road and that of Xenophon coincides with the Roman road, this latter turns more to the east. *Sabatra*, or *Soatra*, is a point in it, 65 MP. to the east of *Laodicea*, a town in *Lycaonia*, the quality of whose soil may be collected from the circumstance related of it, by Strabo, that water was so scarce as to be *sold* there. Here the trace of the Roman road ends, in the Tables; but as the other road from *Amorium* to *Tyana* runs at less than 16 miles [1] from *Sabatra*, that is, by *Petra*, or *Perta*, one cannot doubt but that it proceeded to a junction with it, although omitted in the Tables. The remainder of the road, to *Tyana*, will therefore be the same with that described from *Petra*, in page 197.

[1] Ptolemy.

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3. *Road from Ancyra to Zeugma, on the Euphrates, by Cæsarea Mazaca, Comana of Cappadocia, and Samosata.*

The first portion of this road, from *Ancyra* to *Cæsarea Mazaca,* has already been mentioned, as branching off from *Parnasus,* on the road to *Tarsus,* (see above, p. 190.)

Thus the Antonine Itinerary conducts us to *Cæsarea ;* but the remainder of the road, to Samosata, is found in the Theodosian Tables.

Comana of *Cappadocia* has been recognised in Bostan (or the Garden), p. 161, situated in *Cataonia,* near the northern foot of the great Taurus. The distance between Cæsarea and Comana is given at 90 MP., equal to 64¼ G. miles; and the construction, from materials furnished by Mr. Browne, has 65¼.

Thus far the ancient road coincides with the modern one, leading from Kisariah towards Aleppo; but from Comana, onwards, to *Samosata,* the ancient one went more to the *left ;* that is, it changed from SE. to E. In 6 short stages it reached *Perre* (now Pervera), situated amongst the eastern roots of Taurus, at 24 MP. to the NW. of *Samosata* (Samisat.)

Pervera was fortunately noted by Mr. Charles Vaughan, in his journey from Meletya to Aleppo; for, as it is a connecting point in the Antonine Itinerary, under the name of *Perre,* between the routes to and from Cappadocia, Mesopotamia, the Lesser

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Armenia, and Syria, its establishment has proved of great utility to the construction. It is highly probable that, from this concentration of routes, the mountains *(Taurus)* form a pass there.

Samosata, or Samisat, stands at that remarkable bend in the course of the Euphrates, where, after its emancipation from the skirts of Taurus, it first points towards the gulf of *Issus:* but the roots of *Amanus* (as Pliny calls that ridge) turn it aside from the Mediterranean, towards the Persian gulf.

It must be observed, that the distance given in the Tables, between *Comana* and *Perre,* is quite erroneous, there being a deficiency of more than a fourth part. *Cucusus* (the Kuxon of Mr. Browne) must have lain near the route, which led almost entirely through the region of Taurus, which is very wide in that part, and constitutes a part of Armenia Minor. *Perre,* or Pervera, is therefore fixed, in reference to the position of Samisat, which is itself a fixed point in the geographical construction of Asia Minor, (see Vol. I. p. 283.)

Zeugma, according to the Tables, was 51 MP. below *Samosata,* on the Euphrates.

A road branched off from *Comana* to *Melitene* (Meletya), and a second from Castabella, short of Comana, on the road from Cæsarea to the same place. These are no farther worthy of notice than that they passed by *Arabissus, Osdara,* and *Arkas,* cities mentioned in the Antonine Itinerary, and appearing to have been anciently places of note, although nothing is known concerning them at this

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day; this tract not having been visited by European travellers.

And here it may also be proper to mention, that the road detailed by Strabo, (p. 663.) from Ephesus to *Tomisa*, on the Euphrates, opposite Meletya, cannot be traced between Kisariah and Tomisa: but it probably took the same course with the modern road described by Edrisi, between Kisariah and Meletya.

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CHAPTER II.

ROMAN ROADS ON THE EAST AND SOUTH-EAST OF CONSTANTINOPLE GENERALLY.

Tavia, or Tavium.

TAVIA was the capital of the *eastern* GALATIA ; as ANCYRA of the *middle*, and PESSINUS of the western. It lay almost due east from Ancyra ; and in the road from the latter to *Sebastopolis*, *Comana Pontica*, *Nicopolis*, and *Satala ;* which last was not far from the Euphrates.

M. D'Anville was of opinion that Shurum, or Garom, stood on the site of *Tavia ;* but Shurum appears to be much too far to the north for *Tavia ;* another instance of error, arising from his contraction of the breadth of Asia Minor. For Shurum falls in our construction at 103 G. miles to the northward of Kisariah ; but the Antonine Itinerary allows no more than 109 MP. ; equal to 78 G. miles to *Tavia.* Also, from *Arauenas* (taken for Avanos), in the Theodosian Tables, the distance to Tavia is 97 MP. which falls short of Shurum, by 17 or 18 miles. Hence, it seems very improbable that Shurum should stand on the site of Tavia.

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M. Tournefort, in his way from Tokat to Anguri, came to a place named *Tekia* [1], which occupies the general position in which we should place *Tavia;* but it is more than 20 miles to the southward of Shurum. Other circumstances, besides the beforementioned, convince us that *Tavia* stood in this position; which is midway between Anguri and Tokat; and almost precisely in the line between them.

Tavia is stated to be 116 MP. from Ancyra, in the Antonine Itinerary; and at 111 in the Theodosian Tables; but with the omission of one stage. On the continuation of the same line eastward, at 94 MP. from *Tavia*, was *Sebastopolis;* which place we certainly take for Turkal. Now Tekia, as we have shewn, lies exactly in the line between Anguri and Tokat; and Turkal very little out of it; so that the two lines of 116 and 94 MP., making together 210; and which are equal to 150 G. miles; may be taken, in a general way, as *one* line of distance, between Anguri and Turkal (or *Ancyra* and *Sebastopolis).* And on the construction there are 155; so that the ancient report is 5 G. miles short of the actual geography; equal to about 7 Roman miles.

The Tekia of Tournefort, however, comes nearer to the distance of *Tavia* from *Sebastopolis*, than of *Tavia* from *Ancyra.* It has been remarked that the number of miles in one of the stages is omitted in the Tables; although in this imperfect state they fall only 5 G. miles below the Antonine Itinerary in

[1] An English traveller would probably have written it T*a*kia.

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its *assumed* perfect state. The presumption, then, is, that the deficiency in the total distance of 7 Roman miles would have been found, together with the 5, (the difference of the two Itineraries), in the stage, whose number of miles is omitted in the Tables.

Tekia, then, is found at 91 or 92 Roman miles to the westward of Turkal; whilst *Tavia* was 94 from *Sebastopolis*. But from Ancyra it is 125 or 126, when 111 to 116 only are given. The clear inference seems to be, that if the number of the stage had been supplied, *Tavia* would have fallen in the general situation of Tekia; that is, within 2 or 3 miles of the above result. And such kinds of materials cannot afford closer coincidences.

The following are the particulars of the routes from *Ancyra* to *Tavia*, in the Antonine Itinerary and Tables. *Lassorio* is found in the Tables at 94 MP. from *Ancyra*, equal to 67 G. miles. This place may well be taken for Mourt-Larsarry, in Newbery's route from Shurum to Anguri; 68 short of the latter. Ptolemy has *Lascoria* at 24 G. miles to the NW. of *Tavia;* and this is really the relative position of it on the construction; but of the two stages from thence to *Tavia*, the number of miles of one only is given; namely, *Stabiu*, at 17 MP. from *Lassorio*. The other stage would probably have reached Tekia.

On this road from *Ancyra* to *Lassorio*, *Eccobriga* occurs, at 69 MP. in the Tables; 68 in the Itinerary; and *from* this point (which probably was a bridge over the Halys) the two roads are distinct.

Larsarry being on the north side of the *Halys*, and 24 MP. *beyond Eccobriga*, it must be concluded that the road to *Stabia* and *Tavia* crossed the *Halys* at a point very far below *Eccobriga;* whilst the other road, leading by *Adapera*, to *Tavia*, (see Map, No. X.), may have crossed at *Eccobriga;* from whence it gives 48 MP.; but the construction, as we have seen, requires several miles more.

It has been stated, that the Antonine Itinerary allows 109 MP., equal to 78 G. miles, between *Cæsarea* and *Tavia*. Tekia is 83 from it, and about 100 from Siwas *(Sebaste)*, from whence *Tavia* is said to be 146 MP., answering to 104¼ G. miles.

Combining, therefore, the different reports of the distance from Ancyra, Sebastopolis, Cæsarea, and Sebaste; it will be found, that they all fall in together within the space of 7 or 8 G. miles; although some of the lines of distance are 100 miles in length. And accordingly, that if a mean be taken, *Tavia* will differ less than 4 miles from the mean of all the authorities; that from *Amasia* excepted, which differs more than a third part; the report being 72 MP., where 98 are required.

Tavia is placed nearly at its given distance from Sebastopolis, in preference to that from Ancyra, which appears doubtful.

It appears by the routes transmitted by M. Hammer, that Husseinabad, a principal, or *the* principal, town of the Bozook provinces, is one journey to the *south* of Shurum; so that it must be near Tekia; and

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may have succeeded to Tavia as the chief town of the province [1].

Comana Pontica, Zela, Sebastopolis, and Neo-cæsarea.

From *Tavia*, the roads to *Satala* and *Armenia Major*, lay through *Sebastopolis* (Turkal), *Zela*, *Comana (Pontica)* and *Nicopolis*. A branch from *Sebastopolis*, led through *Neo-cæsarea* (Niksar), to *Polemonium*, on the Euxine, (near Fatsa); a second branch to *Sebaste*, (Siwas); and a distinct road led to *Amasia*, and thence to *Neo-cæsarea* and *Comana*.

Sebastopolis has already been placed on the site of Turkal, a town and castle on the western bank of the *Iris* river, or Tozzan. This place seems equally intended by *Stabulum*, which twice occurs in the Theodosian Tables. Errors of this kind are not uncommon in that singular, but useful document; as *Missos* for *Amisus; Pylicum* for *Ad Lycum; Caspiæ* for *Cyta; Amasia* for *Amastris;* not to mention whole roads misplaced; as that from Amastris to Sinope, which ought to have led along the coast, but is placed far inland. In effect, not only the Tables, but the Antonine Itinerary also, is often

[1] The distance from *Arauenas*, taken for Avanos, 97 MP. in the Tables, goes beyond Tekia, by 6 or 7 miles; but serves to prove, generally, the truth of the relative position of the one to the other.

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so faulty and absurd in this quarter, that the numbers are not to be depended on; and the reason of the thing is more to be attended to than the text.

In the Tables there are two parallel roads, leading from *Tavia* to *Stabulum;* from whence one branch goes to *Comana,* another to *Neo-cæsarea.* The latter of the two parallel roads comes to *Zela* in its way to *Stabulum.* The second station of each of these roads, beyond *Tavia,* appears to be one and the same place; being *Egoni* in one; *Ægonne* in the other; but the distance in the first is 38; in the other 76 MP. The first road has also the *signs* of two more stations between *Egoni* and *Stabulum;* but no names, or numbers of miles to them. But the second, which has three stations within the same space, has also names and numbers; that is, 54 MP. to *Zela,* the second stage; and 32 more, in the third, to *Stabulum.*

Zela is a well known position[1], both in ancient and modern geography, at 3 leagues to the SSE. of Turkal, or *Sebastopolis.* If we may be allowed to take 38 MP. for the two stations from Tavia to *Egoni,* on the one route; and on a supposition that it is the same with *Ægonne* in the other, (as no doubt it is) take the 54 from thence to *Zela;* total, 92 MP.; it agrees to the construction within 4 miles.

But the 32 MP. from *Zela* to *Stabulum,* if applied to Turkal, for *Sebastopolis,* is absurd; seeing that

[1] Here was the field in which Cæsar defeated Pharnaces; and where Triarius was defeated by Mithridates.

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the distance is no more than 3 leagues, or, at most, 12 or 13 MP.; and may have been 12 originally; for we find the *tens* very liberally employed, more especially in Asia, both in the Tables and in the Antonine Itinerary; and in the latter more particularly. This distance of 32, therefore, must be laid out of the question.

It is possible, however, that the route, which makes *two* stations only to *Stabulum*, instead of the *three* in the other, would have given it nearer the truth, had the blanks been filled up; and in that case, the distance to *Stabulum* might have been the same with that to *Sebastopolis* in the Antonine Itinerary.

If it be allowed that *Stabulum* was corruptly written for *Sebastopolis*, all difficulties will vanish in respect of the relative position of the latter to *Tavia;* since the agreement of the construction with the Itinerary is sufficiently near; and also to *Comana Pontica*, a highly celebrated place; and which it will be interesting to fix the site of in modern geography.

Comana, then, is given in the Tables, at 37 MP. equal to 26½ G. miles from *Stabulum;* and the same distance is given to *Neo-cæsarea;* the latter has been fixed by Mr. James Morier, on his return from the Persian Embassy, but, unfortunately, the Tables do not give the distance between it and *Comana*.

We trust, however, that *Comana* will be satisfactorily placed. It was situated on the river *Iris* (Tozzan), which ran to the westward by *Comana*, and afterwards turned to the north to *Gaziura;* (see above, page 127); which agrees with the con-

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struction. The modern notices that we possess respecting it are far from being unworthy of attention; although M. D'Anville appears to have slighted them, and to place his *Comana* at a much greater distance from Turkal; but then he regarded Tokat as *Sebastopolis*.

The notices are from Dr. Pococke, who only reports from others; and from M. Tavernier, who describes what he saw. Dr. Pococke says, that "the ruins of *Gumenak* are near Tokat;" and it is probable that the *Manek* of Newbery[1], which he passed on the day he came to Tokat, is meant for the same place; but no distance is given by either.

But Tavernier (lib. i. c. 2.) saw chambers hollowed out of a great rock, at about 8 British miles to the eastward of Tokat; and at 2 miles from the large town of Sharlekui, 2 leagues from Tokat. The rock itself is in a plain; but he speaks of no other ruins. This is at present a place of devotion for Christians, on occasion of a report concerning St. Chrysostom. This country here is reported to be beautiful; situated between two fertile hills. It is reported that the environs of this oracle very much resembled those of the other *Comana* in Cappadocia[2]. Mountains begin at 4 leagues to the eastward of Tokat; probably a continuation of the high ridge crossed by Mr. Morier, near Niksar *(Neocæsarea)*.

[1] Pliny says (lib. vi. c. 3.) that *Comana* was also named *Manteium*, (a place of Oracles).

[2] Strabo, page 557.

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The position of this rock is about 23½ G. miles to the eastward of Turkal[1], taken for *Sebastopolis*, from whence, as we have already stated, *Comana* was 37 MP., equal to 26½ G. miles; so that the difference is only about 4 Roman miles; which, considering the nature of the materials, as well the ancient as the modern, cannot be regarded as affecting the general result.

It has been stated, in page 210, that the distance given by the Tables between *Tavia* and *Amasia* falls short by about one-third. There is also from Amasia a road to *Neo-cæsarea* 63 MP., equal to 45 G. miles; and the position of this place, that is, Niksar, as given by Mr. Morier, is at 49 from Amasia; which cannot be regarded as a great difference. But the distance in the Tables from *Stabulum*, taken for *Sebastopolis*, to *Neo-cæsarea*, is very wide, being 11 or 12 such miles short of the distance on the construction.

Ptolemy has the following arrangement of the positions of *Neo-cæsarea*, *Comana*, and *Eudoxiara*. *Comana* is 22½ G. miles to the SW. of *Neo-cæsarea*; but about 16 only, (although in the like direction) according to Mr. Morier. *Eudoxiara*, taken for Tokat[2], is 17 or 18 miles to the SW. of *Comana*;

[1] The distance is thus made out: Tournefort, with a caravan, was 9½ hours between Tokat and Turkal. If these are taken at 16½ G. miles, as the rate was very slow, with 7 more such miles for the distance of the rock, we have a total of 23½. The Turkish geographer allows hours between Tokat and Turkal.

[2] See page 128.

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but the remains at Gumenak are only 7 or 8 from Tokat; but much in the same direction. In effect, Ptolemy's distances are all in excess here; for *Neo-cæsarea* is placed at 73 G. miles from Amasia; though, in reality, it is little more than 49!

But as to the general result of the positions of *Sebastopolis, Neo-cæsarea, Comana,* and *Zela,* they may be deemed satisfactory.

The road in the Tables, from *Neo-cæsarea* to *Polemonium,* is imperfect in the numbers.

The branch in the Antonine Itinerary, from *Sebastopolis* to *Sebaste* (Turkal to Siwas) is too short, by about 18 MP.; so that, reckoning from *Sebaste,* Tokat would agree best with *Sebastopolis,* as M. D'Anville has made it. But it would disagree with every thing else.

Nicopolis.

Nicopolis occurs next, as a principal station between *Comana, Sebaste,* and *Satala.* In the Tables, and there alone, we find a road to it, from *Comana,* 84 MP., equal to 60 G. miles. There is also a road to it from *Sebaste* (a continuation of that from *Cæsarea Mazaca)* in the Antonine Itinerary; and afterwards repeated. It is also in the Tables. The numbers stand thus:

Antonine Itinerary,	first . . .	98 MP.
	second . .	86
	Tables . .	98

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Whence 98 may be taken, which are equal to 70 G. miles. And the intersection of these two lines of distance, 70 and 60 G. miles, places *Nicopolis* exactly in the line of the modern road, between Siwas and Erzerum.

Nicopolis is unknown in modern geography, unless it be the Nigissa of the Turkish geographer, whose particular situation is not given, but which is certainly in this quarter. It was built by Pompey, in commemoration of his victory over Mithridates; and was situated in the eastern part of Cappadocia, now Rumiyah [1].

There is a road in the Tables from *Nicopolis* to *Polemonium* (near Fatsa); but it is imperfect.

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[1]*Satala.*

We are now entering on ground, the particulars of whose modern geography are so little known, that the ancient routes cannot be applied with effect. Not but that the position of *Satala itself* may be approximated: but the courses of the intermediate roads to it, as well as others that emanate from certain points in those roads, to *Zimara*, a station on the Euphrates, whose position is unknown, cannot be drawn with any effect, for want of intermediate positions. All that could be done, was, to approxi-

[1] It is said to have been only 6 miles from the course of the *Lycus*, a branch of the *Iris*. Hierocles, p. 703. note.

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mate, in the first instance, the position of *Satala;* and in the next, to endeavour to find out in what general position *Zimara* stood: (for the numbers here, being absolutely corrupted, lead to no conclusion, as they do at Satala.) And finally, to arrange the stations found in the Itineraries, in the most probable situations, between *Nicopolis, Satala, Trebizond, Zimara,* and *Melitene,* according to the supposed meaning of the Tables of routes.

Satala, in the Antonine Itinerary, is placed 100 MP. from *Nicopolis;* and this is repeated: *Dracones,* a station not known, lay exactly midway. In the Theod. Tables the numbers are imperfect: but from *Satala,* eastward, a river is crossed in the way to the Greater Armenia, at the distance of 20 MP. This river is there described as running into the Black Sea, at Trebizond; but, although it may be very true that the river at SATALA runs into the Black Sea (though not at Trebizond), yet the river 20 miles beyond it is no doubt the Western Euphrates, or river of Erzerum, properly named the Frat; for the distance from Nicopolis agrees to this, generally: and on the other hand, the road into Great Armenia may be traced, so as to produce a conviction that the Euphrates is the river intended [1].

[1] The series of rivers that occurs in this road, in the Theodosian Tables, is as follows: The first river, at 20 MP. beyond *Satala,* is taken for the Frat, or Erzerum branch of the Euphrates. The second river occurs at 92 MP., equal to $65\frac{3}{4}$ G. miles from the former, and agrees to the south branch of the Frat, from the quarter of Khanoos. And the third river, named *Confluentes,* which is 57 MP., or $40\frac{3}{4}$ G. miles, from the latter, agrees to the

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Tournefort saw ruins in a position in which we should have looked for *Satala*, in his way from Erzerum to Tokat. The ruins were in two places. In one were the remains of an aqueduct, with semicircular arches, which seemed ancient; and in the other, at a few hours' travelling, farther to the west, two fragments of antique columns, on one of which was an inscription in very ancient Greek characters. This was at the village or town of Sukmé, which Tournefort supposed might have been built on the site of some ancient town; but he hazards no opinion as to the identity of the place [1].

It is certain that the site in question is not within 20 Roman miles of the Euphrates; and even the aqueduct, the nearest of the two, cannot be less than 30 from that river, according to our idea of its course in that particular part; although that idea may not be exact. But this does not invalidate the general result, because of the agreement of the positions, in the note p. 218, with the Theodosian Tables.

There is no absolute rule for determining the *parallel* of *Satala;* for the routes to it, from Trebizond, in the Itinerary, and in the Tables, pass through Gumishkend, a silver mine situated between

conflux of the Aksu river (the *Teleboas* of Xenophon) with the Morad, or eastern branch of the Euphrates; (the Euphrates of Xenophon.)

[1] Satala, according to the improved geography of Mr. James Morier, should have been situated at the descent of the great mountain between Karakola and Chiflik, and near Sudak; which seems to be at the Akpounar (or white fountain) of Tournefort. (Vol. iii. Let. 21.)

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Trebizond and Erzerum; and therefore lying extremely wide of the line between Satala and Erzerum. But it being morally certain that the roads do lead through Gumishkend, a check at least is afforded.

Bylæ, in the Tables, is 76 MP. from *Satala*, 48 from Trebizond: total 124. The Antonine Itinerary has 135, with proportions somewhat different. But they both seem to apply to Gumishkend; which being a valuable mine, had probably a good road made to it, through the mountainous passes: so that it would become a portion of every road that led to the SE. or SW. from Trebizond.

The result of these lines of distance is, that *Satala* ought to occupy the parallel in which the ruins are found; which is about 40°, or a few minutes to the northward of Erzerum.

M. D'Anville took Erzingan for *Satala*. But Erzingan agrees better with *Aziris:* and Ptolemy has both *Aziris* and *Satala*.

The reader is referred to the geographical construction, Plate, No. X., in which are set down the different stations, and numbers of miles, with the authorities for them.

The Roman road terminates, eastward, at *Satala*, in the Antonine Itinerary; but in the Theodosian Tables goes into Armenia, Media, &c.

Satala to Zimara, Melitene, Perre, and Samosata.

This part of our subject is so intricate and perplexing, and at the same time produces so little that

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can give satisfaction, by reason of the uncertainty of positions, that it would be useless to enter much into detail. Therefore we beg leave to refer the reader, as in the matter of *Satala*, &c. to No. X., in which as many of the stations and numbers are inserted as may be required; meaning to say nothing more here than may be necessary to a right understanding of the diagram.

The road from *Satala* to *Melitene*, after tracing back the road from *Nicopolis* to the station of *Carsat* or *Carsagis*, on one of the roads; and to *Dracones* on the other (for there are two); that is, about midway from *Nicopolis*; goes to *Zimara* on the Euphrates; and from thence, coasts the bank of that river, generally, to *Melitene*[1].

As it is impossible to fix either *Carsat* or *Dracones*, the line of distance between them and *Zimara* would be of no use in fixing the latter. But from *Melitene* to *Zimara* the case is different, as there is a point of outset from the former. The distance from *Melitene* to *Zimara* is given in the Antonine Itinerary at 110 MP.[2], equal to 78½ G. miles, which would reach from Meletyah to a point 10 MP. *higher up* the Euphrates than Komakh, a celebrated fortress on a high hill, on the western bank. On the other hand, the distances from *Dracones*, and *Carsat*, or *Carsagis*, to *Zimara*, are, respectively, 68 and 72 MP., or from 48½ to 51½ G. miles; and, allowing

[1] In the Antonine Itinerary, p. 207, entitled "*Iter a Satala Melitenam per ripam Samosata.*"

[2] The Tables have 140.

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the utmost latitude that can be taken, in placing the former stations, these distances would reach some miles *below* Komakh. One would suspect, therefore, that Komakh represented *Zimara*.

M. D'Anville informs us that Komakh was first heard of under the Lower Empire, under the name of *Camaches*. But might it not, like *Cabira* (Siwas), have changed its name, which before might have been *Zimara?*

Ptolemy's *Sismara* agrees better to *Zimara* than his *Ximara*, as the former is placed *above Anti-Taurus*, as it ought to be.

Dascusa occurs in the Antonine Itinerary at 50 MP. above *Melitene;* 60 below *Zimara*. According to the *proportion of its distance* from *Melitene* to *Zimara*, it ought to be a little above the conflux of the Morad, or Eastern Euphrates, with the Frat. *Dascuta*, in Ptolemy, bears much the same proportion to *Zimara* and *Melitene* as *Dascusa* in the Itinerary. On the whole, the 10 MP., provided Komakh be *Zimara*, is no great proportion of difference, where such materials alone are to be obtained. We have, however, placed *Zimara* distinct from Komakh, but very near it.

The continuation of this road, from *Melitene* through *Perre* to *Samosata*, is very clearly explained by Mr. Vaughan. The Itinerary gives 67 MP. to *Perre*, whose position is well known as a common point between *Melitene*, *Samosata*, and *Comana*, now named Perverah; and stated by the same Itinerary to be 24 MP. from *Samosata*, [to the north-west.]

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Roman Roads in the south of Cappadocia and Armenia Minor; comprised between Cæsarea, Sebaste, Nicopolis, the Euphrates, and Anazarba.

These routes are found in the Antonine Itinerary and Theodosian Tables, and receive some illustration from Ptolemy. They do by no means lead *directly* to and from the places given under each title in the Itinerary, but are rather a register of separate roads, between certain principal places, than direct lines of communication between the distant places between which they are reported to lead: as if a table announced a road from London to Bath, but which led to it through Coventry and Gloucester.

It is possible that no other *made* roads than those existed; and that certain classes of carriages were obliged to go on such circuitous ways. But when the Itinerary professes to describe a route from *Nicopolis* to *Arabissus*, by way of *Sebaste*, *Castabella*, and *Comana*, as in the Antonine Itinerary, p. 213; from *Cæsarea* to *Melitene*, by *Comana*, *Arabissus*, &c. as in p. 210; from *Sebaste* to *Cucusus*, by way of *Melitene*, in p. 178; whilst a much nearer road is pointed out, by way of *Tonosa*, in pages 180 and 212; and finally, between the same places, by way of *Cæsarea*, in p. 178; we must at once be convinced that these Tables did not mean to send people such a circuit; but was an awkward way of saying that such roads existed.

This being understood, the lines of distance be-

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tween places may be used to establish their positions, without any impeachment of their use, as Tables of roads.

The following roads, or portions of roads, occur within the space included in the title of this article:

1. Cæsarea Mazaca to Comana of Cappadocia, Cucusus, Perre, and Samosata; a portion of the third road to Syria, already described.

2. Cæsarea to Sebaste; being a part of the road to Satala, &c.

3. Comana to Melitene, by Arabissus and Osdara.

4. Comana to Anazarba.

5. Comana to Sebaste; being a portion of the road from Comana of Cappadocia, to that of Pontus, through Tonosa.

6. Castabala (in Cataonia [1]) to Melitene.

7. Castabala to Nicopolis, by Tonosa and Zara.

In the discussion of such of these routes as may require it, many of the principal towns situated on them will necessarily be fixed.

Comana and Perre have been already placed; the one at Bostan, the other at Perverah.

Castabella arises in the same route, (called *Coduzabala* in the Itinerary,) at 24 to 26 MP. from Comana towards Cæsarea.

Arabissus, Osdara, and Arkas, arise on the third route.

Arabissus is 78 MP. from Sebaste, (through Tonosa); 74 from Arkas, which is placed by Edrisi,

[1] There is another *Castabala* in *Cilicia*, near the gulf of Issus.

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in respect of Meletyah, and is well known in modern geography as the first town from Meletyah towards Siwas. This leaves an interval of 46 MP. between Arabissus and Comana: and the Itinerary gives this distance; that is, 24 to Ptandari, 22 to Arabissus.

Osdara rests solely on the road distance.

The fourth route, from Comana to Anazarba, is part of one entitled "from Cæsarea to Anazarba," and is actually given by way of Comana and Cucusus; at which latter place the general course of the road *forms a right angle* between Cæsarea and Anazarba.

The distance given between the latter and Cucusus is 98 MP., but a direct road, with common winding, would have given 66 only. The intermediate stations of Laranda, Badimo, and Prætorium, cannot therefore be placed, but *Flaviada*, or *Flavias*, by its distance of 40 MP. from Anazarba, and being situated in *Characene*, answering to the present Sis, is probably the city of Sis, as M. D'Anville has supposed.

Tonosa, which occurs in the fifth and seventh routes, is the point of union of the two roads from Castabella, Comana, and Arabissus; as well as the point of separation of those to Sebaste and Nicopolis. It is 70 MP. from Castabella, 28 from Arabissus, and 50 short of Sebaste, or Siwas, through which lay the road to Comana *Pontica*.

The road from Tonosa to Nicopolis fell into that from Sebaste to Nicopolis, at *Zara*, about midway between the two places.

The road from Castabella to Melitene is entirely

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from the Theod. Tables, and has no known place of note in it. It may be remarked, that, but for the recognition of *Castabella* in the Tables, in the *Coduzabala* of the Itinerary, this latter route would have been lost; and the position of Tonosa would have been uncertain. For the numbers are so much corrupted in both, that it requires a close inspection and comparison in order to bring out any useful result.

Cucusus, now Kuxon, is placed according to Mr. Browne's idea; but differs widely from the Itinerary, which gives 28 and 38 between *Ptandari (Tanandaris)* and Cucusus, when 18 only will agree: and, indeed, it is a known error of this Itinerary to put more *tens* than ought to be. Between Comana and Siricis, Siricis and Cucusus, 12 only will agree in both cases, and 24 are given. And here it may be remarked, that the first stage from Comana towards Perre and Samosata, in the Tables, *Catara*, at 21 MP. agrees to *Cucusus*, both in direction and distance.

M. D'Anville's idea was, that Cucusus stood at about 32 G. miles to the SE. of Comana, owing to his following too closely the distance in the Itinerary. The construction allows 17 or 18 only, in a direction nearly east.

Constantinople to Trabezon, or Trebizond, along the Euxine.

The Theodosian Tables contain a route along the Euxine, the whole way from Constantinople to Tre-

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bizond, and even to *Dioscurius*, or Sebastopolis: or rather, it may be said to contain fragments of it, with indications of its having been complete, but entirely misunderstood by the framer of the Theodosian Tables, who, in many instances, appears in the character of an ignorant compiler. Places are transposed; and between Amastris and Sinope the road is carried inland, to the southward of Gangra and Pompeiopolis; although it lay through *Cytorus*, and by *Carambis*.

Of course no attempt can be made to analyze the present article. It has, however, had its use; for it has afforded some particular distances, as well as aid in the comparison of Arrian's Periplus with the actual geography.

Constantinople to Nicomedia, Gangra, Pompeiopolis, and Sinope.

This route, as far as *Pompeiopolis (Toosia)*, more than 300 B. miles, goes over the same ground generally with that travelled by the modern caravans and tatars (posts); being a portion of the northern road to Bagdad and Persia, by Amasia, Siwas, and Diyarbekr; as that by Eski-Shaher and Kuniyah is the proper southern route.

Few places are marked on this road, and the numbers are sometimes omitted, as well as corrupted in others. From Nicomedia it comes to *Lateas*, 24 MP., answering to Sabanja. Thence through *De-*

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metrias to *Dusepro*, 55 MP. from Nicomedia, probably Dusdjy, but wanting nearly half the distance.

A place marked as a principalstation, but without a name, next occurs, at 30 MP. from Dusdjy. This is probably intended for *Hadrianopolis*, now Boli, situated on a river which is a branch of the *Billæus*, but in the Tables passes for the *Sangarius*. This seems to be the town marked in Ptolemy *Timnea*, before the time of Adrian. The distance given by the Tables is quite at variance with the construction.

Beyond this station, taken for Hadrianopolis, now Boli, at 131 MP., equal to 92½ G. miles, is *Gangaris*. This is precisely the situation of Kangiri, (called also Gangra,) the capital of a sanjak of the same name. Short of this place, 36 MP. in the Tables, is *Anadynata*, taken for Sherkesh, although the places are really 2 journeys distant. Again, *Antoninopolis*, still farther removed, seems to be Baiander; and *Cepota*, the *Carus* of the Itinerary, now Keredy. From this latter there was a Roman road to *Claudiopolis*, or *Bithynium*, situated on the *Billæus*, opposite to Heraclea of Pontus. There is also a road given from Anadynata to Amastris, 71 MP., but requiring for the interval at least 95. Nor does this difference lead to any suspicion of error in the parallel of Sherkesh, for it is placed according to its distance from Anguri, and lies almost directly north from it.

Here it is proper to explain more fully the nature of the error in the Tables just mentioned, and in p. 227. This road from *Anadynata* proceeds by three stages to *Amasia*, meaning *Amastris:* and the

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same road, instead of pointing to the coast, on which Amastris is situated, runs *inland*, even within *Pompeiopolis!* Yet *Mastrum*, also meant for *Amastris*, is found in its proper place, on the coast.

The route proceeds from the false Amasia to Sinope, by various places whose names are corrupted, but which, notwithstanding, are clearly intended for *Cromna, Cytorus, Ægialus*[1], *Carambis*, and *Stephane;* but all *inland*. This error ought to be a caution how far this document may be trusted, where the reason of the thing makes any matter in them doubtful.

To return to the route to Sinope. After Gangaris, or Gangra, the road leads to *Pompeiopolis*, 35 MP., which agrees to Toosia, it being a part of the road from Gangra to Sinope. From this place (Pompeiopolis) to Sinope, the whole is imperfect.

Pessinus, and the roads between Dorylæum, Ancyra, and Amorium.

In discussing the subject of the road to *Ancyra*, a lateral road from it to *Dorylæum*, or Eski-Shaher, was mentioned, and the distance on it given, in proof of the harmony of the positions, see page 201. This route is the more interesting as it leads to the fixing of PESSINUS, or PESINUNTE, the famous place of worship of the Mother of the Gods, and the capital of the *Tolistoboii*, or western division of GALATIA.

[1] Cromen, Cythero, Egilan, Carambas, &c.

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The Roman road in question occurs in the Antonine Itinerary, page 202.

Ancyra to Papiria . .	27
Vindia . .	32
Germa[1] . .	32
Arcelaio . .	20
Dorilao . .	30
Total	141, equal to $100\frac{1}{2}$ G. miles.

There is a second route in the same book, p. 204, leading over the same ground from Ancyra to Germa, but 8 shorter in the stage between Vindia and Germa, as:

Ancyra to Papiria	27
Vindia	32
Germa	24
Pesinunte	16
Total	99

The 141 agree exactly to the space on the construction. If the 24 were adopted, instead of the 32, between Vindia and Germa, the distance would fall short.

There is a third route in the Theod. Tables, from Dorylæum to Pesinunte and Amorium:

Dorileo to Mideo	28
Tricomia . . .	28
Pesinunte . . .	21
Total	77

[1] Called also *Germa Colonia*.

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But this route is too circuitous to be used in the construction.

In the same Tables, the route is continued from Pesinunte to Amorium, which has been already placed at the ruins of Balhazar.

The distance of Pessinus from Amorium, in the Tables, is 47 MP., equal to $33\frac{1}{2}$ G. miles, (northwards); and which is little short of the distance between Amorium and the place which Germa would have occupied had the *general line* of the road been *straight* between *Ancyra* and *Dorylæum*, as happens in ordinary cases: but it is found that Germa lies 16 MP. beyond the assumed position of Pessinus.

Here it is proper to observe, (or rather to repeat [1]), that the modern road from Anguri *(Ancyra)* to Eski-Shaher *(Dorylæum)* instead of running in a direct line between the two places, goes far to the northward, and through Bekbazar *(Lagania)*; from which latter place it goes *direct* to Dorylæum. And supposing this to be owing to some local cause, as the ford or passage of the Sangarius, it most probably went in the same direction anciently. Certain it is, that this circumstance alone might well account for the greatness of the distance between Amorium and Germa in the Itineraries; and which would place the latter exactly on the site of Kahe, or Gahe, a town in the direct line between Begbazar and Eski-Shaher, which is that of the present road. And this being premised, we shall proceed to state, that a

[1] See the Geographical Construction.

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place of the name of *Bosan* [1], in a route collected by M. Niebuhr, occurs in the route from Bekbazar to Seid-al-Gazi (a portion of the great caravan road from Smyrna to Anguri); and just in a position to answer to the distance of Pessinus from Amorium, on the one hand, and to that from Germa on the other hand; admitting it to take the position of Kahe, or Gahe. Moreover, that the position of *Pessinus* (at Bosan) falls near the course of the *Sangarius*, as determined by the crossing-places of Pococke and Tournefort (amongst others), *above* and *below* it. For, of the 28½ hours of distance between Bekbazar and Seid-al-Gazi, Bosan falls at 11 from the former, 17½ from the latter. Nor is the context of the geography much unlike that of Ptolemy, between *Amorium*, *Juliopolis* (or *Gordium*), and *Protamacra*; in which *Therma* represents the hot baths of Aiasse: *Vindia* is in its place; and *Pessinus* falls between Amorium and Juliopolis, following the course of the river.

The ridge of mountains answering to *Dindymus*, was crossed by Pococke at Sevrihissar [2], on the *south*, and by Tournefort and Newbery on the *north* of Pessinus, near Gahe, or Kahe. The mountains are named Chawbelle by Newbery, and may have given

[1] We learn that this name is written by a traveller or cosmographer of the name of *Thevet*, in a voyage made in 1549, Possene. The author has not yet seen the book entitled Cosmographie du Levant, of the date of 1556.

It has also been applied by others to Pessinus.

[2] Not the place of that name which occupies the site of ancient *Gordium*.

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name to the fort of *Cuballum*, in the route of Manlius in this very neighbourhood. (Livy, lib. xxxviii. c. 18.)

This position of Pessinus does not however seem to agree with one particular notice in history, if taken *literally*. It is true that Ammianus carries Julian thither, when on his march from *Nicæa* to *Ancyra*, by deviating to the right hand, or *southward* of the road, from the *frontier of Galatia*, (lib. xxii. c. 9.) But according to Livy, (lib. xxxviii. c. 18.), Manlius, after crossing the *Sangarius*, TO the eastward, at somewhat more than one march short of *Gordium* (Juliopolis); by which is to be understood that he crossed at much about the same point as Tournefort and others did, in the way from Eski-Shaher to Bekbazar; and being on the way TOWARDS *Gordium*, was MET on the way by the priests of the goddess Cybele, FROM Pessinus.

If the priests were really coming *directly from* Pessinus, it would be decisive of its being situated to the *northward* of *Germa Colonia*, (or Kahe); and, indeed, this is strongly implied: but allowing the word the utmost extent of meaning that can be given it, the priests may yet have come from a point *higher* up the river than Manlius's bridge; and it may have been, that their personal convenience, or some other cause, may have induced them to *cross* at a point *lower* down than the bridge, in order to avoid mixing with the army, or its followers. Therefore we cannot allow the text of Livy to do away other strong facts; such as the *distance* from *Amorium*, whose position seems indisputable: for had

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Pessinus been to the N. of Germa, there would have been a deficiency of 30 or more miles, in a space given at 47. Nor is the report of *Bosan*, (or *Possene*), falling so exactly in with the distance from the supposed *Amorium*, to be lightly given up: and finally, the ideas of Ptolemy, cited above, agree with the construction generally.

M. D'Anville has placed *Pessinus* at 15 or 16 G. miles lower down the Sangarius than *Gordium*, and only about 6 or 7 miles from *Dadastana;* doubtless according to the above words of Livy. But the whole context of his geography, in this quarter, differs from ours. If, therefore, he was aware of the existence of Possene or Bosan, he disregarded it.

It is possible, after all, that Livy only meant to say that Manlius was *joined* by the priests on his march. Had Pessinus been in his front at that time, it seems probable, that more would have been said about it eventually. It was remarkably famous, on the score of the worship of the Great Mother; and at this time the image of the goddess, or perhaps only a rude stone so denominated, had been removed to Rome 16 years.

*** This article completes the examination of the Roman roads in Asia Minor, on the *east* and *south-east* of Constantinople; whether originating from that capital, or connected with those that do.

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CHAPTER III.

ROMAN ROADS ON THE SOUTH AND SOUTH-WEST OF CONSTANTINOPLE.

It is proper to remark, that there are no ancient roads on record issuing from Constantinople, and pointing southwards, between the quarter of *Synnada* on the SE. and *Pergamus* on the SW. This, no doubt, was owing to the same causes that have, in later times, prevented any direct communications between Kutahiah on the east, and Akhissar on the west; that is to say, the impediments which extend across the space generally, on the SE. of the Propontis; as the lake of *Apollonia*, and the lofty chains of *Olympus* and *Temnus;* for we know of no ordinary communication between the road from Moudania to Smyrna and Sardis; and that from Brusa to Kutahiah and Isbarteh.

It appears also that all the ancient routes that are on record, originating from Constantinople, and pointing to the westward and south-westward, finally centre in Pergamus. One of these coasts the north side of the *Propontis*, as far as *Bisanthe*, now Rodosto; where it turns inland to *Apros*, or *Apris;* and is thus far a portion of the great western road to *Thes-*

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salonica. At *Apros* it branched off to the south-west, and through a part of the *Chersonesus* of Thrace to *Callipolis* (Gallipoli), where it crossed the *Hellespont,* or Strait of Gallipoli, to *Lampsacus;* and thence by *Ilium, Antandros,* and *Adramyttium,* to *Pergamus.* The detail of this road from *Lampsacus* will be included, generally, in that of the next, or second road, it being common to both.

This second road coasted the eastern and southern sides of the *Propontis,* by *Cius,* (Ghio, or Gemlek), and *Cyzicus,* to Lampsacus, where it joined the former one.

A third turned off to the south (inland) from *Cius,* and passed through *Prusa ad Olympum* (Brusa) to *Miletopolis;* then crossed Mount *Temnus,* at *Hadriano-theræ;* and thence to *Pergamus.*

And a fourth road led direct from *Cyzicus* to *Pergamus.*

1. The first of these roads has been just traced to the crossing of the Hellespont, at *Lampsacus,* where the second falls in [1].

2. The second is complex. It appears, by the Tables, to originate either at Yalova or Samanli, on the SE. of the *Propontis;* for it is at a point to the westward of *Pronectus,* or Karamousal. From thence it passes by *Cius,* (Gemlek, or Ghio), between the gulf of that name, and the lake *Ascanias (Nicæa),* and to *Cyzicus* along the coast. And from *Cyzicus,* successively, to the river *Granicus,* to *Priapus,* and

[1] In this road *Aphrodisias* appears to be represented by the present Bourlac-Avering.

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Lampsacus ; still coasting the *Propontis ;* where the first road by the north of the same sea joins.

The course of the modern road to Lampsacus, from Ghio, is to Moudania, on the same gulf; thence inland to Mahalitch *(Miletopolis) ;* and to the bridge of Kokerjinlik, over the *Esepus ;* then to that of Demotico, over the *Granicus ;* situated 3 hours inland. It comes again to the coast at Koridge, 4 hours short of Shardak, or Jardak, the ordinary crossing place of the Hellespont from Gallipoli ; and only 1½ hour short of *Lampsacus,* which it appears to have succeeded as the crossing place of the *Hellespont.*

From *Lampsacus* the road led through *Abydus* and *Dardanus* to the *New Ilium*[1] ; from thence to *Alexandria Troas ;* where it branches into two, to *Adramyttium ;* one, *direct,* by *Antandros* (in the Antonine Itinerary); the other, more circuitous, and along the sea-coast, by *Assos* and *Gargara,* to *Antandros* and *Adramyttium,* (in the Theodosian Tables).

From *Adramyttium* to *Pergamus* the particulars are *omitted* in the Tables; and *corrupted* in the Antonine Itinerary; being 53 MP., when 33 would agree better. Other errors, in distance, occur in other parts of the route; but the names and distances being mostly known from modern travellers, leave little doubt respecting their identity.

Pergamus is reported to be 16 MP. inland from *Elæa* (now Yalea) at the mouth of the *Caicus*

[1] The *Ilium* which existed in the time of Strabo.

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river; and the Tables have a complete route to it from *Adramyttium;* along the sea-coast of *Æolis.*

3. The third route turned inland from *Cius* to *Prusa ad Olympum* (Brusa). Thence to *Apollonia,* an island in the lake of the same name; and onwards to *Miletopolis;* near the lake *Artynia,* (according to Pliny, lib. v. c. 32); which is now nearly filled up.

From Cius to Prusa is given in the Tables at 15 MP.; thence to Apollonia, the distance is omitted: but from that to *Miletopolis,* it is 20 MP., shewing that Mahalitch is the place intended. From *Miletopolis* to a place apparently intended for *Hadriano-theræ* [1], is 33 MP. As this agrees perfectly in distance with Demirkapi, or the *Iron Gate,* a pass through Mount *Temnus,* where a *gate* still remains [2]; this doubtless was *Hadriano-theræ* intended by the Tables, and also that of Hierocles, situated in the *Hellespontian* division of Asia Minor. The Tables allow 8 MP. *only,* between it and Pergamus; but this is one of the many errors of that document.

It is probable that from the pass of Mount Temnus, the road led through Belikesr, whose ancient name is not known [3].

4. The fourth road from *Cyzicus* is quite imperfect in the Tables both in names and numbers. It

[1] In the Tables it is corruptly written; but understood by M. D'Anville and others to be *Hadriano-theræ.*

[2] This gate has been remarked by different travellers. It is situated at the ascent of the mountains on the side of *Miletopolis.*

[3] M. D'Anville places *Miletopolis* there.

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consisted of 4 stages, of which the two middle ones alone are given.

Road from Troas, along the sea-coast to Smyrna, Ephesus, Miletus, &c. &c.

This road branches from the Pergamus road, at *Adramyttium*, now Eidermit; from whence it skirts the general line of the coast, by several stages to *Elæa* (Yalea) at the mouth of the *Caicus* river, 16 MP. from Pergamus. Thence, cutting off a large peninsula, that projects towards *Lesbos*, it came again to the coast at *Cumæ* or *Cymæ*, at the head of a gulf of the same name, now Sandarlik. Again, cutting off a second peninsula, in which *Phocæa* was situated, it came to *Temnos*, a town situated on the gulf of Smyrna, near the embouchure of the river *Hermus*; and thence to Smyrna, rounding the head of its gulf.

The distances are given, uninterruptedly, from *Ilium* to *Temnos*; but the distance of the last stage, between that and Smyrna, is omitted in the Theod. Tables; *Elæa* and *Cyme* agree with the numbers; and it is unlucky that the position of *Temnos* can only be guessed at. From other notices, it is collected that Temnos must have been situated very far up the gulf of Smyrna; which will agree with the 33 MP. of the Tables from *Cumæ*. But Menimen, which has been taken for it, is much too near to

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Cumæ; and too far inland from the gulf. The road from *Temnos,* round the head of the gulf, to Smyrna, was probably 19 or 20 miles; but very much less by water; so that it is the custom now, as, perhaps, anciently, to go a great part of the last stage by water.

From Smyrna to Ephesus there was a causeway, (it would appear by the remains) and the length of the way is given by Strabo at 320 stades. The distance on a straight line between the two places is 31 G. miles; but by the position of *Metropolis,* which lay in the way, the road could not have been carried on a straight line; not to mention the interposition of *Gallesus,* a very steep mountain. Of course, the stades must have been of the Roman standard, of 600 to a degree, or 8 to a Roman mile; whence the winding could have been only 2½ miles in 31.

Another road lay chiefly along the coast, and was, therefore, very circuitous. It led through *Teös, Lebedos,* and *Colophon,* and has been already spoken of under the head of Iönia. (See also No. XII. G.)

The site of Ephesus is well known from its remains. (See above, Vol. I. page 289).

The next two stages beyond Ephesus, bring us to *Miletus;* but they are corrupted in point of numbers, as well as in the name of the intermediate station; probably meant for *Priene.*

Myndus is next; then *Cnidus; Loryma,* in the *Peræa* of Rhodes; then round the head of the gulf of *Telmissus* to *Patara,* on the SW. side of the peninsula of Lycia; *Antiphellus* and *Corydalla* on

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the south; and *Phaselis* on the eastern coast of the same country. And, finally, *Attalea (Satalia)* in *Pamphylia*. Here this road appears to end, or rather, perhaps, at *Phaselis;* for *Perge, Aspendus, Side,* &c. along the coast, belong to the continuation of the road from Ephesus and Pergamus to *Laodicea ad Lycum.*

The numbers from Ephesus are so much corrupted, as to appear as if they had almost been given at random. The Theodosian Tables, therefore, only shew, in this place, that such a road or a communication existed, and was recorded.

From Pergamus to Sardis, Laodicea ad Lycum, and Pamphylia; and thence to Cilicia, along the coast.

This route appears partly in the Antonine Itinerary; partly in the Theodosian Tables. The Itinerary conducts us only to *Laodicea;* at which point, the great eastern road from Ephesus, to the Euphrates, described by Strabo, joins. Beyond Laodicea, towards Pamphylia, the particulars are taken from the Theodosian Tables; which, however, are very imperfect, and only serve to shew that such a road was *known;* but the detail *unknown.*

Although this road is entitled from *Pergamus,* yet it is, in effect, the road from *Ilium,* and from *Constantinople* to *Pamphylia,* &c.; and by the branch

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that joins it at *Laodicea*, it becomes the road from *Smyrna* and *Ephesus* also.

Departing from Pergamus to the south-east, the road leads through *Germa* to *Thyatira*, 58 MP. This exceeds the space by about 10 miles; but then the position of *Germa*, in respect of parallel, is not known; and may lie wide of the line. The Itinerary and Tables are here agreed in the distance.

Thyatira was clearly the present Akhissar. The Tables describe a road to Smyrna from it; of which the first station is at 36 MP. from Thyatira, but has no name; and the second stage to Smyrna has no number. The first may well be taken for *Magnesia* at Mount *Sipylus*.

Sardis (now the village of Sart) is 36 MP. from Thyatira in the Tables; 33 in the Itinerary. The position agrees best to the latter. Sardis is very satisfactorily placed, as may be seen by a reference to the construction, Vol. I. p. 288.

Strabo gives the whole distance between Pergamus and Sardis, at 600 stadia; and says that Apollonis lies midway. Palamont, which may be taken for this latter, is nearest to Pergamus, on the construction; the total distance agrees generally, allowing the standard to be Roman stades.

There is no road given from Smyrna to Sardis in either of the Itineraries. But there is one from Ephesus, in the Tables, the distance 63 MP., which has a general agreement with the construction. But Herodotus, (Terp. c. 54.) allows 540 stades only; which is somewhat less than the *direct* distance between Ephesus and Sardis. (See Vol. I. p. 290 of the construction).

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From Sardis, the road led (in the same SE. direction) to *Philadelphia*, now Allashahr, 28 MP., according to the Itinerary; and thence to *Hierapolis*, on the *Mœander*, through *Tripolis;* 45 MP. by the Itinerary; 46 by the Tables. *Laodicea* was at six miles to the *southward* of Hierapolis; the *Mœander* running between them; and the *Lycus* and its adjuncts, in a collective stream, joining it hard by. Here ends the road in the Itinerary, which is very consistent with the ground all the way from Pergamus. The Tables have no distance between *Thyatira* and *Philadelphia*[1]. The other particulars agree with the Itinerary generally.

There was probably a shorter road from Philadelphia to Laodicea, in ancient times, than the one given, by way of Hierapolis. Such there is in modern times: but the ancient military way might probably have had its bridge at Hierapolis, because it was *above* the junction of the *Lycus*, and other torrents, from Mount *Cadmus;* which must at times have rendered a passage below precarious or dangerous.

The site of Laodicea, once the capital of this part of Phrygia[2], is still recognised at the distanc of an hour's travelling from Degnislu.

[1] Dr. Chandler misstates a particular in the Theodosian Tables, page 259. He says that they give 30 MP. between *Sardis* and *Philadelphia;* but there is no such distance to be found.

[2] Cicero's Letters. Philomelium and Synnada are also spoken of as the capitals of provinces under the Roman distribution. Pliny (lib. v. 29.) mentions Laodicea, Synnada, and Apamia, in this way.

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Here the great eastern road from Ephesus passed towards *Apamia Cibotus, Cæsarea Mazaca,* and *Melitene* on the Euphrates. So that it was the central point between four great roads; to *Ephesus,* to *Sardis, Pergamus,* and *Ilium;* to *Apamia Cibotus, Synnada,* and *Cæsarea Mazaca;* and lastly to *Pamphylia.* Degnislu is to be regarded, in this respect, in modern times, as *Laodicea,* in the ancient; having succeeded it, as the principal town in that quarter.

The road is continued in the Tables towards Pamphylia, through *Themisonium* and *Cormasa;* whilst the modern road reaches Cournar, taken for *Cormasa,* by a more northerly line of direction; that is, by the lake of Burdoor, anciently the *salt* lake of *Ascanias.* From *Cormasa,* it went to *Perga, Aspendus,* and *Side;* the latter situated on the coast of Pamphylia, and taken for the present Eski Adalia. But the numbers are either *corrupted* or *wanting;* so that the only knowledge communicated is the existence of such a road as we have often had occasion to remark in other instances.

The same Tables have in like manner a road from *Side,* along the whole coast, eastwards to *Tarsus* and *Issus.* But in this also there are errors and differences of every kind. Soli and Pompeiopolis, though the same place, are given as different places, 33 MP. asunder. It is probable that *Tarsus* should have been written instead of Soli. The names along the coast from *Side,* are, *Selinunte, Anemurium Seleucia, Corycus, Pompeiopolis,* &c.

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Ephesus to Laodicea ad Lycum, Celænæ, Apamia Cibotus, Synnada, Antiochia of Pisidia, &c.

Magnesia, at the Mæander, was, till very lately, supposed to have been at Guzelhissar, but Mr. W. Hamilton has shewn that Guzelhissar was *Tralles*, and that *Magnesia* was at Inebazar, midway between Guzelhissar and Ephesus. This discovery was chiefly owing to his recognising, at Sultanhissar, the exact description of the ground at *Nysa*, where Strabo had studied [1], and which was no doubt very strongly impressed on his mind, like that at Amasia, his birth-place, of which he has also given a strong delineation. In consequence of this discovery of Mr. Hamilton's, *Tralles*, and the whole suite of positions, fell into their proper places.

Magnesia, where there are considerable remains, (although they had been so entirely overlooked,) was 120 stadia from Ephesus to the ESE., and *Tralles* 140 more, in the same direction: total 260 stades [2], answering to 11 hours of ordinary travelling, which is the distance of Guzelhissar from the ruins of Ephesus. And beyond *Tralles* was *Nysa*, whose description answers so completely to Sultanhissar, which is six hours to the eastward of Guzelhissar. These places are all near the north bank of the *Mæ-*

[1] Strabo, p. 649. The ground is very singular; that on which the city is built being divided into two parts by a ravine, and joined by means of a bridge.

[2] Strabo, p. 663.

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ander, and at the foot of Mount *Messogis*, now named *Kestanus* Dag, or the Chesnut mountains [1].

Carura, a town formerly noted for being at the passage of the Mæander from *Lydia* into *Phrygia*, and which also formed the common boundary of *Caria* and *Phrygia*, is given by Strabo at 740 stades from Ephesus [2]. This place had been totally destroyed by an earthquake, and can now be approximated by means of the distance only, but as it was only 20 MP. short of Laodicea, in the Tables, this approximation is not unsatisfactory. Taking $14\frac{1}{4}$ G. miles for the 20 MP., *Carura* will stand at $67\frac{1}{2}$ G. miles to the eastward of Ephesus [3]; agreeing generally with the 740 stades, (if Roman, as may be conceived.) Here then we close, in a very satisfactory manner, this road from *Ephesus* to *Laodicea* on the *Lycus*, as we did that from *Pergamus*, in p. 243.

The Theodosian Tables fail on this portion of road, as in many other places already noticed. But they afford one useful fact: *Antiochia*, at the *Mæander*, a noted city of Caria, is given at 56 MP. from Magnesia, equal to 40 G. miles, in which position are found ruins, and a fortress under the name of Jenishaher.

[1] See Dr. Chandler's Travels, p. 205, *et seq.*

[2] Ibid p. 663.

[3] See the construction, Vol. I. p. 292, where Degnislu is taken at 24 hours, equal to $55\frac{3}{4}$ G. miles from Guzelhissar, or *Tralles*; $80\frac{1}{4}$ from Aiasaluk; and $81\frac{3}{4}$ from *Ephesus*.

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Apamia Cibotus and Celænæ.

From *Laodicea*, or rather from *Hierapolis*, which is 6 MP. to the northward of it, (p. 243,) the delineation of the road, in the Tables, is not so clear as could be wished, to *Apamia:* although it may, with some difficulty, be made out; for no stage or number appears to be omitted. It passes from *Hierapolis*, through *Tralles* [1], *Socratu*, and a village without a name, to Apamia, with a total distance of 72 MP., equal to $51\frac{1}{2}$ G. miles, in *direct* distance, and thus far ought Apamia to be from Hierapolis.

Apamia having been situated on the Mæander, near its source, or reputed source, (for it had more than one head,) the course of it, tracing it upwards, ought to lead us to the site of *Apamia*, as well as to that of *Celænæ*, which was but a very few miles from the former, and actually *at* the reputed source of the Mæander; therefore Apamia should be sought at $51\frac{1}{2}$ G. miles up the Mæander, from Hierapolis.

The next consideration is the direction or bearing of this line of distance, and this will be obtained by two different authorities, which, agreeing generally in their result, afford proof to each other. The one of these is General Koehler's route from Burdoor, which intersected the course of the Mæander, nearly at the given distance of Apamia; the other, the bearing line of Dr. Pococke, together with his dis-

[1] Not the *Tralles* which occupies the site of Guzelhissar.

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tances, from the point where General Koehler struck the course of the Mæander, to Laodicea and Hierapolis, on the one hand, and to Aufium-Kara-hissar, on the other.

The place or position alluded to is named Sandukly, a town of some consideration. The General was 18 hours in going to it, from Burdoor, northwards, (and it is equally distant from Isbarteh, not far from Burdoor, and a position fixed with more accuracy,) and 25 hours short of Kutahiah. Accordingly, the proportion of 18 in 43 from Isbarteh, or Burdoor, meeting the distance of $51\frac{1}{2}$ G. miles from Hierapolis, places the point sought for on the Mæander, for the position of *Apamia*, since it was situated on the Mæander.

Sandukly is at the distance of 21 or 22 G. miles to the SW. of Aufium-Kara-hissar, (or one day and a quarter of travelling,) according to Dr. Pococke; at the same time, his whole bearing, between Hierapolis and Karahissar, was E. 28 N. Consequently, Sandukly, being on a *more southerly* bearing from Karahissar, will bear a few degrees more easterly from Hierapolis; and this agrees most perfectly with General Koehler's distance from Burdoor. At the same time, the distance between Hierapolis and Karahissar, about 73 G. miles, agrees exactly with the sum of the two lines of distance; the one of $51\frac{1}{2}$ from Hierapolis; the other of $21\frac{1}{2}$ from Karahissar.

However, we are inclined to regard the position of Sandukly as that of *Celænæ*, rather than of *Apamia*, which was a very few miles from it, lower

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down the Mæander. For Sandukly has many fine springs and ruins, and is seated under a ridge of lofty hills, as Celænæ was. We therefore consider Sandukly as *Celænæ*, and place *Apamia* at $3\frac{1}{2}$ G. miles to the southward of it, where it stands, at the given distance of 72 MP., or $51\frac{1}{2}$ G. miles from *Hierapolis*.

Dr. Pococke placed Celænæ at Ashkly, a day's journey to the SW. of Sandukly; and, indeed, the scenery altogether bore him out in the supposition; the Mæander, with beautiful springs flowing into it, from Ashkly, answering to the description; but, then, it neither agreed with the distance given by Xenophon from *Colossæ*, and the crossing place of the Mæander from *Sardis*, or that of the Theodosian Tables, from *Synnada*, as will be shewn.

In the first place, Xenophon made 8 parasangas from the pass of the Mæander, on the road from Sardis to *Colossæ*, which travellers agree to place at Konos, $14\frac{1}{4}$ G. miles from Degnislu, and therefore agreeing with the report of Xenophon[1]. From *Colossæ*, Xenophon reckoned twenty parasangs to *Celænæ*, equal to 60 MP., and the construction, reckoning to Sandukly, has about $62\frac{1}{2}$, which is decisively against Ashkly, which is only 38[2].

[1] Konos is 5 hours to the E. of *Laodicea ad Lycum*; taken, by Picinini, for *Colossæ*, and where ancient ruins are found.

[2] The *Celænæ* of Xenophon stood at 22 parasangas; that is, 66 MP., equal to $47\frac{1}{4}$ G. miles, short of the Forum of the *Ceramians* (or Kutahiah), which, laid off from thence to Sandukly, falls three miles and a half short of it, but may serve to prove the general truth of the positions.

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On the other hand, the Tables give from *Synnada* to *Euphorbium* 37 MP., and, from thence to *Apamia*, 36; total 73; equal to $52\frac{1}{4}$ G. miles. The distance on the construction to *Apamia*, placed as above, is actually about 52; or, taking the two intervals between Hierapolis and Synnada, the one $51\frac{1}{2}$, the other $52\frac{1}{4}$, we have $103\frac{3}{4}$ G. miles, and the construction has the same within a mile.

This is, on the whole, a coincidence that no one could have expected, since the *data* for the two positions of Synnada and Hierapolis are derived from different authorities, and that have no connection with each other; Synnada being derived from Karahissar, which is itself fixed by latitude, by observation, and has its longitude from the mean of many reports of distance between Smyrna, Anguri, and Adana; and Hierapolis, by mean distances between Smyrna, Ephesus, and Kuniyah. In effect, the ancient notices have so close an agreement with the modern, that had not the modern been fully exposed to the view of the reader, it might have been suspected that the construction had been formed on the ground of the ancient notices, and with a view to make them coincide.

Alexander is said to have made 5 marches from *Sagalassus* to *Celænæ*, passing the lake of *Ascanias* (Burdoor) by the way. But this distance will equally agree with Ashkly and Sandukly.

As Dr. Pococke fixed on Ashkly for the site of *Celænæ*, so did M. D'Anville on Aufium Karahissar for that of Apamia; so that here was a difference of about 40 miles. Ours is between the two, but

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nearest, by much, to Pococke. M. D'Anville, by this arrangement, may be said to have annihilated a space of more than 20 miles, in his beautiful map of Asia Minor.

CELÆNÆ was a city of high antiquity in Phrygia, and had a citadel of great strength, as appears by the conditions granted to it by Alexander. Xenophon, who saw Celænæ, describes it as a great and flourishing city, with a royal park and a palace, and as having the head of the river Mæander within the palace. Livy, Strabo, and Pliny, all speak to the same purpose respecting it, and agree that other springs which join it rise in the same neighbourhood. At the same time, Pliny mentions a river *Obrima*, together with the *Orgas* and *Marsyas*, which environ *Apamia*, and fall into the Mæander.

Now Manlius, in his march northward from Sagalassus, came to the *source* of the river *Obrima*, and encamped at *Comi-Aporidos*, which was at a considerable distance from Apamia, by the circumstance of Seleucus's arriving in camp on the next day. (Livy, lib. xxxviii. c. 14.) And as Seleucus took no state or consequence upon him, at this season, but was rather obsequious, it may be taken for granted, that he came to the consul's camp as soon as he knew where he was. We, therefore, conceive this *Aporidos* to be the *Apollonia* of the Tables, 24 MP. to the eastward of Apamia. So that the *Obrima* river must, at all events, have its source very far from Apamia, although they might choose to call *that* branch the Mæander, which rose in Celænæ. It is sufficient to the purpose that there were at and

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in the neighbourhood of *Celænæ* several sources that were reckoned the heads of the Mæander; and there might be other branches that fell in from other places, as appears in the case of the *Obrima*. And it must not be omitted, that General Koehler found the Meinder, or *Mæander*, at Sandukly, which is a whole day's journey *above* Ashkly [1].

Antiochia of Pisidia, &c.

There is a continuation of the road, in the Theodosian Tables, from Apamia Cibotus to Antiochia of Pisidia, &c., 69 MP., of which the first 24 are to *Apollonia*, just mentioned, and thence 45 to *Antiochia*. The road is not continued any farther eastward, but there are two distances, the one of 60, the other of 80 MP., which lead to *Side*; that is, to the coast of Pamphylia; whence one might conclude that the distance was 140 MP., equal to about 121 G. miles from Antiochia to Side [2].

[1] Thucydides mentions (lib. iii.) that certain Athenians had ascended from *Myus*, up the valley of the *Mæander*, as far as the hill *Sandius*. Sandukly seems to be too far removed from *Myus*, for such an adventure, in those times. Pliny names the hill of Celænæ *Signa*.

[2] This part of the Tables is very obscure, but it would seem as if it meant to express, that, from the point at 60 MP. from *Antiochia*, the station of *Isaura* was distant 24 MP.; in which case, Begshehri would answer to the ancient city of *Isaura*. M. D'Anville appears to have understood the same thing; and *Isaura* is doubtless to be looked for in that general position.

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Strabo's route, (p. 663,) before mentioned, from Ephesus to *Carura* and Apamia, does not mention Antiochia; but from Apamia goes to *Holmi*, a pass in that chain of Taurus, (which commences at the Chelidonian islands,) and thence to *Tyriæum* (or *Tyriarium*), by the way of *Philomelium*, from which point, eastward, it has been already discussed under the head of *Archelais*, &c. (p. 192.)

It may however have *passed through Antiochia*, between the *Pass* and *Tyriæum*. The distances are given apparently in Roman stades of 600 to a degree; but the present business is rather with the *comparative* than the *absolute* distance, as in the case of *Archelais*. Strabo allows 920 stades between Carura and Holmi, and somewhat more than 500 between that and *Tyriarium;* no doubt meant for the *Tyriæum* of Xenophon; as, like that, it has a connection with Philomelium.

Had nothing more been said by Strabo respecting *Philomelium*, &c., it might have been concluded that, from Apamia, the route lay through the great valley of *Paroreias Phrygia*, by Sakli and Akshaher, to *Philomelium* and *Tyriæum*, the route of Xenophon. But in p. 577, after describing the mountains of Paroreias Phrygia, extending from east to west, he places *Philomelium* to the north, and *Antiochia* to the south of those mountains, and this ridge is so marked a feature of the country, that it cannot be mistaken in the Sultan-dag, which bounds the south side of the great valley above mentioned, through which lay the Roman road from Dorylæum to Laodicea Combusta, through Philomelium. So that this

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latter being on the *north* of the ridge, one naturally supposes Antiochia to have been on the *south* of it, according to the words of the geographers.

There is a journal of a traveller (in the New Memoirs of the Jesuits' Missions, vol. viii., A.D. 1745,) from Smyrna to Syria. In the course of his journey, he came to Kadunkan, about 7 miles short of Ladik *(Laodicea Combusta)*, in 15 days from Smyrna; and, at four days before that, he passed Hamamlu Bogasi, or Pass, (reputed dangerous,) in a chain of mountains, which appear, by the situation, to be clearly a continuation of that passed by Lucas, between the lake of Egerder *(Trogitis)* and Belgers; and which Pococke crossed between Sandukly and Aufium Karahissar, and these are connected with the ridge from *Chelidonia*, as the mountains which contained Strabo's pass of *Holmi* are.

The traveller came by Allashaher *(Philadelphia)*, but notes no places, till he came to *Balmamont*, one journey to the eastward of the pass, three short of Kadunkan. Had he passed by way of Karahissar, Sakli, and Akshaher, he would surely have mentioned some one or more of these, as they are places of note. It may be conceived, therefore, that his route lay much in the line of that described by Strabo, (probably at all times a great road, though not used by the caravans,) by the sites of *Apamia*, *Holmi*, and *Antiochia* of *Pisidia*.

Tavernier, who went from Smyrna, by way of Allashaher and Karahissar, was in a caravan, proceeding to Tokat, &c.; but a person going to Syria would go quite out of his way, if he went so far to

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the north as Karahissar. Therefore, it may be inferred, that the traveller in question went by Strabo's road as far as Kadunkan and Ladik, at least.

Dorylæum to Philadelphia; that is, from Eski-shaher to Allashaher.

This route, which is also found in the same Tables, may have been part of a great road from Ephesus to *Gordium*, *Ancyra*, or *Heraclea* of Pontus. It is known that the course of commerce varies in different ages, and even that caravans occasionally change their routes, to the same place of destination.

There are given 155 MP. between *Dorylæum* and *Philadelphia*, whilst the direct distance requires 180, with the ordinary degree of winding; but even if the road was absolutely straight, 160. The first station, *Codeo*, which may have been corrupted from *Cotyæum*, is 30 MP., although 38 are required to *Cotyæum* (Kutahiah). The next, *Acmonia*, or *Agmonia*, 35, agrees nearly with the ruins of Ahatkoi, mentioned by Dr. Seetzen. The third and fourth, *Aludda* (or *Alydda*) and *Clanudda*, are both mentioned by other authors, but their sites cannot be referred to any modern places.

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Dorylæum to Eumenia.

This road, in the same quarter of Asia Minor, is also found in the Tables. *Eumenia,* although a place of note, sufficient to give its name to the surrounding tract, is not known in modern geography, any more than *Eucarpia,* another place of note, on the same road. It happens that this road, as well as the former, lies very much out of the line of travelling of Europeans; particularly in the quarter of *Eucarpia,* and of *Eumenia,* and between them and *Philadelphia.*

The distance given between *Dorylæum* (Eskishaher) and *Eumenia* is 122 MP., equal to 87 G. miles. The only point of information in the Tables, to guide the judgment in laying off this line of distance, is, that there was a road from *Eumenia* to *Apamia Cibotus;* but a stage being omitted, the distance is of course vitiated. Pliny informs us that Eumenia was situated on the river *Cludrus,* and we learn from Strabo (p. 577), that Eumenia was the principal town of a district or country. Tavernier, in his way from Allashaher *(Philadelphia)* to Aufium Karahissar, crossed some considerable streams; and one of them, named Bana, answers to the river of Morad of the Turkish geographer. It was, perhaps, named *Bana,* or *Banaz,* to Tavernier, because it ran by that town, whose position is collected, from the above author, to be near the Morad mountains, and may be, perhaps, taken for *Eucarpia,* 30 MP. short of *Eumenia.* The Morad, or one of its ad-

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juncts, may have been the *Cludrus;* for on supplying a reasonable number of miles for the stage omitted, the whole distance of Eumenia, westward from Apamia, would be about 40 MP., which distance intersects the course of Tavernier's Bana river [1].

It happens that, in this road, there are places in the present geography that agree with two of the ancient ones, according to the distances given in the Tables. The first is *Agklise,* agreeing with *Necolia,* at 20 MP. from *Dorylæum.* The second is Zalkoi, agreeing with *Conna,* at 40 MP. from *Necolia.* There are said to be very many and great ruins at Zalkoi. And next is Banaz, agreeing with *Eucarpia,* at 32.

Road from Physcus (or Castra Marmora) to Tralles (Guzelhissar), and through Iönia.

Strabo (from Artemidorus,) has a road from *Physcus,* opposite Rhodes, to *Ephesus,* through *Tralles,* and thence to the northern frontier of IÖNIA (p. 663). It is thus detailed :

[1] The Morad mountains, on the NE.; the Messogis, or Kestanous, on the S.; and the Aglebashi, on the W.; form a vast bason, in which a number of streams collect and join the Mæander, in a confluent stream, near Degnizlu. One of these is the Bana of Tavernier; and here also we should look for the *Cludrus.*

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From Physcus to Lagina	850	Stadia.
Alabanda	250	
Tralles	160	
Total	1260	

The distance from Physcus to Tralles, the parallels of which are sufficiently known for ordinary purposes, is no more than 63 minutes in difference of latitude, and the obliquity is but small; so that no more than 70 G. miles of distance can be made out; or in stades of the Roman standard, of which the present road is probably given, 700. There must, therefore, be some grand error.

The ruins taken for those of *Alabanda* are about 210 stadia from Tralles, instead of the 160[1]; and the Mæander, which is said to be crossed midway, or at 80 stadia, from Tralles, is within 3 or 4 miles of Guzelhissar, the supposed Tralles; so that 40 or 50 stades would have been nearer the truth.

Lagina may reasonably be supposed to be the Lakeena of Dr. Pococke, situated at the southern descent of Mount *Latmus*, midway between Eskihissar and the supposed ruins of Alabanda. In this position, it is about 350 stadia from *Physcus*, instead of the 850 of Strabo, so that it is midway between *Physcus* and Tralles, and may be taken at 140 to 150 short of Alabanda, which would make up the sum of 700 stades, between Physcus and Tralles; so that *all* the numbers are corrupted, if we are right in the position of Alabanda; or wheresoever that may be, the *aggregate* is wrong.

[1] See above, p. 51.

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From Tralles (Guzelhissar) the road has already been traced to Magnesia and Ephesus (page 245), 260 stades, which was found to agree. And from Ephesus to Smyrna, Strabo gives it differently, in different places; 300, in one; 320, in another. The latter seems most reasonable. And from Smyrna to Phocæa, 200 stades, terminates the length of Iönia from the Mæander. See also *Iönia*, pp. 2, 3.

*** This article completes the examination of the Roman roads in Asia Minor.

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CHAPTER IV.

ROMAN ROADS IN RUM-ILI. (THRACE AND MŒSIA.)

In Rum-Ili there were, amongst other Roman roads, three that were more particularly to be considered, as being portions of great roads that formed the principal communications between Italy and Constantinople. Of these, two only can be reckoned *direct* roads; the third being a branch from one of the others, and leading very circuitously to the point, which the others approached in the usual manner.

The first of these roads, leaving Italy by the south, and crossing the Adriatic *gulf*[1], between *Brundusium* and *Dyrrachium*, passed through *Macedonia* and *Thrace*, and crossing the lower part of the

[1] The *Adriatic Sea* appears to have been the *middle* bason of the Mediterranean, between Sicily on the W., and Candia on the E. In the *Theodosian Tables*, it is so expressed; as well as in St. Paul's description of his voyage, in Acts, chap. 27. Between Candia and Malta (*Crete* and *Melita*) they were "*driven up and down in Adria*," v. 27. What is *now* called the *Adriatic* was properly the Adriatic *Gulf*.

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Hebrus river, came to the *Propontis*, at *Bisanthe*, now Rodosto. This may be called the *Brundusian* or *southern* road.

The second road was from the north of Italy, and passed round the head of the *Adriatic*, by *Aquileia*, and thence, falling on the Danube, near the site of the present Belgrade, proceeded by *Philippopolis* and *Adrianople*. This may be called the *Aquileian*, or *northern* road.

The third is a branch from the second, striking off at *Viminacium*, below Belgrade, and from thence, coasting the southern bank of the Danube, to the mouth of its southernmost branch, when it turned to the southward, along the coast of the Euxine, &c.

Having thus given a view of the general direction and scope of these roads, it will be proper, in describing such portions of their detail as may fall within the limits of this work, to *reverse* the order of tracing them; that is, to begin at Constantinople and proceed *towards* Italy.

1. The BRUNDUSIAN, or *Macedonian* road, led from Constantinople, along the shore of the *Propontis*, to *Bisanthe* (Rodosto), about 93 MP., through *Selymbra* and *Heraclea (Perinthus)*. From *Bisanthe* it struck inland, and, by a westerly course, crossed the river *Hebrus*, at a short distance beyond *Dyme*, which is itself 20 MP. above *Ænos*, or Eno, situated near its mouth. *Dyme*, by the Itinerary, is about 83 MP. from Bisanthe; *Apros* (or *Apris*) and *Syracella* lay in the way. At the former of these places, a branch from each side struck out from the Macedonian road; one to the

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NW., to *Hadrianopolis*, or Adrianople; the other to the SW., crossing the Hellespont, between *Callipolis* and *Lampsacus*, and proceeding thence to *Ilium*, *Pergamus*, *Sardis*, &c., as before described; in effect, the great road to *Iönia*, &c.

The just-mentioned road, from Constantinople to the Hebrus, is very nearly the same as is in use at the present day. The branches to Hadrianopolis and Lampsacus vary from the old course, only by diverging earlier, after passing Rodosto; for the site of *Apros* must lie wide of the modern road to the north.

The different Itineraries and Tables give various courses to this road, between *Syracella* (which is midway between *Bisanthe* and *Dyme*) and the *Hebrus*. One goes direct to *Dymis*; another through *Cypsela*, which lies wide to the southward, to *Dymis*; and a third, after passing *Dymis*, crosses the Hebrus at *Trajanopolis*; still more wide to the northward. Both are described to join at *Milolitum*, 23 MP. to the westward of *Dyme*, or *Dymis*.

Another branch, from Syracella, struck to the SW. to *Ænos* [1].

2. The second, or AQUILEIAN road, separated from the BRUNDUSIAN, at *Heraclea*, or *Perinthus*, (26 MP. short of *Bisanthe*), where it struck inland to the NW. to *Hadrianopolis*, (Adrianople). The mean of the distances collected from the Itineraries, agrees precisely with that of the modern authorities;

[1] See the Maps of Construction, or of Positions, Nos. X. and XII.

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which allow 44 hours travelling ; (see Vol. I. p. 313) ; and which is also corrected, intermediately, by the celestial observation for the longitude at Selivra ; and by time-keeper at Heraclea. The intermediate stations, ancient and modern, have also in most instances a perfect agreement, as nearly as the materials of each class will admit of a comparison. Several of the names may also be recognised. For the modern road leads almost precisely in the track of the ancient one, with the small exception of the modern road turning off from *Selymbria,* instead of *Heraclea,* to *Turullus,* (Chiorlo) ; thus cutting off an angle at Heraclea. So that the ancient Macedonian and Italian roads were common as far as Heraclea ; but the modern no farther than Selivria, or *Selymbria.*

The wall of Anastatius began at Heraclea.

3. The third road being so circuitous as to destroy the idea of a road from Italy, it will be best to consider it as containing certain *distinct* roads, although it be entitled in the Antonine Itinerary, page 217.

" *Iter per ripam* [*Danubii*] *a Viminacio Nicomediam.*"

It will accordingly resolve itself into the following separate roads :—

1. From Constantinople to the southern mouth of the Danube ; to which also the road towards *Hadrianopolis* was common, as far as *Ostudizus,* 18 MP. short of the former. On a reference to the Map, No. XII. (H.) it will appear to be a very circuitous road ; but the modern north road goes on

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the same line as far as Araba Bourgas, *(Bergule)*, only two stages short of the other; seeming to prove that the country in the line between Constantinople and Kirk-kilissa is too rough to be conveniently practicable for direct communications. There is, however, a road from Constantinople to Midya, (Salmydessus); and thence along the coast to Bourgas and *Anchialus;* but not so much in use as the inland one.

It may be, also, that *Ostudizus* lies more easterly in respect of Adrianople than we have placed it; but our authority does not warrant the placing it otherwise than as it stands.

From Ostudizus, the Antonine Itinerary gives 92 MP. to *Anchialus*, recognised in Akkiolo, on the north side of the gulf of Foros, which had *Apollonia* and *Chersonesus* on the opposite side.

Anchialus is a geographical point of importance in ancient geography; for in this place the ancient road separates; that to the right, or east, following the sea-coast, to the mouth of the Danube; the other to *Dorostorus*, (Dristra, or Silistria), on the Danube, and thence to *Trosmis*, (Maksin), on the same river; the extreme point, northward, of the Roman Itineraries.

Much is reserved of the detail of the route along the coast, for the Memoir on the Periplus of Arrian; where it is more appropriately introduced, in the comparison of the distances; and to this we beg leave to refer. But it may be proper to state here, in abstract, that after the separation of the roads at *Anchialus*, that one which goes along the sea-coast

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reaches *Odessus* (Varna), in 55 MP., by the Tables; whilst the inland and ordinary road, through *Marcianopolis*, has 68 in the Antonine Itinerary.

It is to be observed that this city, (so called from a sister of Trajan), which occurs on the road to Silistria, lies almost directly inland from Varna, at the distance of 18 MP.; so that *Marcianopolis* is, in fact, no more than 50 from *Anchialus*, whilst Varna, or *Odessus*, is 55; the three places forming a triangle, of which the side between Marcianopolis and Odessus is very short in proportion to the other two; being 18 MP. only.

The cause of this *detour* appears to have been that anciently a gulf of the sea entered the coast at *Odessus*, and penetrated 10 or 12 miles up the country; and to the neighbourhood of *Marcianopolis*. That gulf is now become a lake; having a communication with the bay of Varna, by fresh water channels only; like those of Kabes and *Latmus*. The road along the coast must, of course, have anciently passed across the mouth of this lake at a ferry. (See more particularly the Memoir on the Euxine, article *Marcianopolis*, and the Map, No. XII.—H.)

From *Odessus*, northwards, the road passed successively through *Calatis*, *Tomis*, and *Istropolis*, to the southern mouth of the Danube; the detail of which will also be found in the just-mentioned Memoir.

2. Road from *Anchialus* to *Dorostorus* and *Trosmis*.

Marcianopolis has been already placed. From

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thence it continued in the same direction; but the particulars are either wanting, or the numbers corrupted; 59 MP. only being given, although 88 are required, to *Dorostorus*, or Silistria. The position of this place is well known.

From thence to *Trosmis*, or Maksin, the road coasts the south side of the Danube, which, having in its easterly course approached within 23 G. miles of the Euxine, turns suddenly to the north to Maksin, where, receiving the waters of Moldavia, &c. it again as suddenly turns once more to the east to discharge itself into the sea. This extraordinary circuit is accounted for, by the Danube having changed its course. For it discharged itself in early times at *Tomis* and *Istropolis;* of which evident marks remain; but some impediment to its free course arising, it appears to have gradually thrown itself into the bed of the confluent waters from *Dacia*, now become the bed of the Danube.

Trosmis, the most advanced station in the Itinerary, was the station of a legion.

3. The road from Trosmis to the mouth of the Danube.

This road coasted that part of the river, which appears to have been the ancient bed of the *Dacian* waters.

It appears both in the Itinerary and the Tables, with a variation between 105 and 100 MP. respectively. The particulars will be found in the Memoir on the Periplus of Arrian, Book IV. Chapter I.

The remark that occurred respecting certain circuitous roads in Asia Minor, will not only hold good

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in this place, but it may be seen that the title of a road to *Nicomedia*, by the banks of the Danube, is given to the table of distance, that has been under consideration; so that it may be said, taking the title literally, that *two* sides of a triangle, nearly equilateral, are to be gone through, in order to accomplish one in actual distance.

It will be unnecessary to speak of any more ancient roads in this quarter, save that from *Hadrianopolis* to *Ænos*. It coasts the river *Hebrus;* and is given in distance, in the Antonine Itinerary and Theodosian Tables, at 89 to 92 MP.; and was of use in corroborating the position of *Hadrianopolis*. See No. X.; and also Vol. I. p. 314, 315, of the Geographical Construction.

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BOOK IV.

EUXINE.

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CHAPTER I.

AN EXAMINATION OF ARRIAN'S PERIPLUS OF THE EUXINE SEA.

Preliminary Observations and Remarks between the Bosphorus and Heraclea.

THE design of the present enquiry is to compare the PERIPLUS of ARRIAN, in respect of its names of places, and portions of distances, with the actual geography under its present improved form. And in order to this, it became necessary to consult various other ancient authorities, which serve to throw light on the main subject. Such are the fragment of the *anonymous* Periplus in Hudson, the Antonine Itinerary, and Theodosian Tables; with various notices in Strabo, Pliny, Ptolemy, Marcian, and Sallust.

The primary object in the view of science is the placing, in ancient geography, of such a number of cities, promontories, and *embouchures* of rivers, as appear in the Periplus. And it may be said, that there are scarcely any principal positions mentioned in the Periplus, that may not be recognised in the

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present geography, owing to the great improvements that have been made in it, in this quarter, in very recent times, by the French and Russians.

The subject of the present division of the work is explained by a chart of the Euxine, drawn for the purpose, (No. XII. letter I.); but in cases where more detail is sought, the references will best be made to the first four sheets of the Comparative Geography, No. I. II. III. and IV.

It is well known to those who are the least conversant with this Periplus, that Arrian's own proper survey was confined between *Trapezus* and *Dioscurias;* a space containing only one-tenth of the whole circuit of the Euxine; and that the whole extent visited by him was much less than half of its entire circuit; that is, from the *Bosphorus* of *Thrace,* eastwards to *Dioscurias.* The remaining, and larger part, from Dioscurias, returning by the north and west to the same *Bosphorus,* is given by him from the reports of others; but probably from very good authorities, since the enquiry was professedly made for the use of the state; and the enquirer himself a man in power, and of great intelligence, and also on the spot.

There are different opinions concerning what portion of this sea Arrian himself had viewed. One may conclude from the expression with which the Periplus sets off, that he went from *Byzantium,* or from *Nicomedia* to *Trapezus* by sea; for he says, "We came in the *course of our voyage* to *Trapezus.*" What other voyage but from Byzantium? For immediately after the report of his transactions

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between *Trapezus* and *Dioscurias*, he gives a detail of the whole coast between *Byzantium* and *Trapezus*. Moreover, he speaks of *Cotyora*, as if he certainly had seen it; and much the same of the ports between *Carambis* and *Sinope*. One would, therefore, naturally conclude, that he viewed the coasts of *Bithynia*, *Paphlagonia*, and *Pontus*, generally, in his way to *Trapezus*.

It has also been surmised that Arrian explored the NE. coast, between *Dioscurias* and the *Cimmerian Bosphorus*. But it does not seem necessary to suppose it. The information which he transmits might have been collected by one of his officers; and he still might very properly say, that "he had taken care that the emperor should be made acquainted with the navigation as far as the *Cimmerian Bosphorus*." The details are perfectly consistent, save in one instance, where 300 stadia appear to be given, instead of 200.

The Euxine, like the Caspian Sea, has taken a new form in our geography. Like that also, though in a less degree, its geography is made up from a variety of materials; but of such, however, as bear, for the most part, a higher degree of authority.

From the canal of Constantinople to Trebizond, the outline is taken from the actual observations of M. DE BEAUCHAMP; as well in respect of celestial observations for the general distribution of the larger masses of space, as of *cursory* surveys to regulate intermediately the prominences and indentations of the coasts.

The number of points determined by celestial

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observations, and by time-keepers, within this space, is no less than 15; more than double the number found in the remainder of the circuit.

It happens that the space thus described by M. de Beauchamp includes the greatest part of that either seen or explored by Arrian; by which a fairer ground of comparison is furnished between the report of Arrian and the actual geography, than could otherwise have been obtained.

For the remaining parts of the coasts of the Euxine we are indebted to the Russians. Their materials consist generally of a sea chart of the whole Euxine; and such parts of the new map of Russia, *in Europe*, &c.[1] (1800) as touch on the shores of the same sea. It has appeared in the geographical construction of Rûm-Ili, that there are some slight disagreements between these documents, in the quarter between the Danube and the gulf of Foros; and more particularly between the Danube and Kustenza. It is probable, that, in this part, where the land operations were carried on, at a great distance from the coast, the sea chart ought to have the preference.

Between the mouth of the Danube and the Phasis, going round by the north, the Russian land map has been followed, with some small exceptions, respecting the form and extent of the coast, between the Phasis and the river Kobi.

The Russian land map extends southward only to

[1] This splendid work is contained in upwards of 100 sheets; the scale $5\frac{1}{4}$ inches to a degree. The chart is in 2 sheets, scale $3\frac{1}{2}$ inches nearly to a degree.

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the gulf of Foros; and to this point, from Kustenza, the authority of the land map has been deemed superior to that of the sea chart (in respect of the mere form of the coast); as the engineer must have kept the coast in view through the greatest part of the space.

The gulf of Foros itself is from a survey communicated by Sir James Bland Burges, and which has the name of Spencer Smith to it.

Between Foros and the canal of Constantinople, the Russian sea chart has been followed entirely.

In placing the island Ilan-Adassi, or Serpent Island *(Achilles)*, off the mouth of the Danube, that chart has also been followed, in preference to the land map. The former has it E. 4° 30′ N. 23 G. miles from the Sulina mouth: the latter E. 3° 30′ N. 33 G. miles, or 10 farther from the coast. There can be little doubt which of the authorities *ought* to have the preference in the point of distance. By the Periplus the island appears to be at that distance from the coast at which the ancient ships were in the habit of sailing when they had a fair wind.

Between the Phasis and Trebizond, the least attention will shew that the Russian sea chart is utterly wrong. This has been spoken of in the account of the line of distance from Trebizond to Teflis. The chart allows only 54 G. miles from Trebizond to Gonieh, although M. de Beauchamp reports it to be 130 Turkish miles, equal to 78 G. miles.

Again, between Gonieh and the Phasis the chart allows 52 G. miles, which is given at 70 Turkish. So that it allows nearly equal intervals between

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Trebizond and Gonieh, Gonieh and the Phasis; although the former is about double the latter. The southern coast of the Euxine, in this chart, besides the defect of general and particular form, has other very extraordinary errors. Samsoun is placed at the mouth of the Kizil Irmak, instead of that of the Amasia river. One may therefore conclude that the part of this sea, whose hydrography is well known to, and improved by, the Russians, is that between the canal of Constantinople and Anapa, to the north and east: and that they have improved very considerably the coast of the Abkas, between Anapa and the Phasis.

It fortunately happens, that the observations of M. de Beauchamp occur in the defective part of the Russian chart; so as to leave less occasion for regret at its deficiency.

The ancients compared the form of the Euxine to a *Scythian bow;* of which, the northern coast, between the Bosphorus of Thrace and the Phasis, constituted the *bow,* and the southern coast the *string*. And on the ground that such comparisons are usually made this may be allowed to pass [1].

In respect of dimensions, as far as respects the circumference, and some transverse lines across it, they seem to have been sufficiently informed; as will presently appear. But, notwithstanding that Strabo knew its general dimensions, he has totally failed in point of form; for he imagined the western

[1] Such as, that Italy is like a boot; Britain and Sicily, triangles; Ireland, an owl; Ceylon, a ham, &c.

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side, from the Bosphorus to the Borysthenes, to form a *straight line:* and that at Dioscurias it formed a narrow deep gulf, somewhat like that at Perekop [1]. On the other hand, the form, as given by Ptolemy, is very tolerable. He places the Phasis and gulf of Varna opposite to each other, as they nearly are; and the widest part between the Bosphorus and the Borysthenes. He also approaches the truth in the space between *Carambis* and *Criu Metopon;* as well as in their relative bearings. But then his *Mœotis* is large, out of all proportion.

The greatest length of this sea is in the line between the gulf of Foros *(Apollonia)* and the mouth of the Phasis, 606 G. miles; and its greatest breadth, taken between the mouths of the *Sangarius* and the *Borysthenes*, is 339. The narrowest part lies between the approximating points of the Krimea and the Cape of Sinope (Kirkiness and Indgeh), where it is reduced to 134. Strabo places the *narrowest* between *Carambis* and *Criu Metopon:* but the truth was, that Cape Indgeh (or that nearest Sinope), though nearer to the Krimea than the other, was too low to be seen at a great distance; therefore *Carambis,* which was lofty, would always be reckoned the nearest to *Criu Metopon.*

Strabo allows 2500 stades (or more probably he wrote 1500 originally, as his other measures come so near [2],) between *Carambis* and *Chersonesus,* in the

[1] See M. Gosselin's Map, in Strabo, vol. i. French Translation. And in his Geog. des Grecs analysée.

[2] For he allows 3800 stades between the Bosphorus of

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Krimea. To reduce it to *Criu Metopon* 140 stadia must be deducted, and 1360 will remain, (on the above supposition of 1500), but these give only 116 or 117 G. miles. It seems more probable that Strabo meant to reckon to the nearest land of the Krimea; and that *Chersonesus* is a mistake, as *that* carries the line of distance *across* the land: 1500 to the *nearest* land would give about 129, and the distance between *Carambis* and *Criu Metopon* is about 142.

Pliny (lib. iv. 12.) reckons 170 MP., or about 136 G. miles, which comes very near. Ptolemy came yet nearer.

The entire circuit of the Euxine, measured through the different points mentioned in the Periplus, and in the line that an ancient ship would probably have sailed, to coast it, is 1914[1] G. miles: and which, turned into Roman miles, in the proportion of 60 to 75, are equal to 2392. It appears an extraordinary coincidence of numbers, that 2360 such miles should

Thrace and the mouth of the Borysthenes. These, at 700 to 1°, are equal to 326 G. miles; and on the construction there are about 340.

[1] Circuit of the Euxine in geographic miles.

From the Bosphorus of Thrace (Cyanæan islands) to Tomis	$251\frac{1}{4}$
Tomis to the Borysthenes	$216\frac{1}{2}$
Borysthenes to Sebastopol	235
Sebastopol to Panticapæum	$167\frac{3}{4}$
Panticapæum to Dioscurias	$238\frac{1}{2}$
Dioscurias to Trebizond	192
Trebizond to Rewa	615
Rewa to the Cyanæan islands	3
	1914

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be the report of Agrippa, recorded by Pliny, (lib. iv. c. 12.) as the circuit of the Euxine. The report of Cornelius Nepos is 2500; and that of Strabo 2434 [1]. Other reports in Pliny are, Varro, 2150; Mutianus, 2865; Artemidorus, 2919. Polybius (lib. iv. c. 5.) has 22,000 stades, which is only 720 short of Strabo.

A remarkable circumstance is, that Polybius, quoted by Pliny (lib. iv. c. 12.), says, that the distance between the two *Bosphori* of *Thrace* and *Cimmeria*, on a straight line, is 500 Roman miles. For, on the actual geography, the distance is 400 G. miles, which are just equal to 500 Roman: a certain proof that the ancients knew the exact distance across, although they might be unable to express the exact form of the sea. It would appear, likewise, that they possessed a more accurate method of determining a ship's way than we have been willing to allow them. Most probably, they first coasted Asia Minor to a *large offing* from *Carambis;* from whence, taking their departure, they shaped a course for making *Criu Metopon;* and thence, closing by degrees on the shore of the Krimea, near the *Bosphorus* of the *Cimmerians*. So that their course

[1] M. Gosselin recapitulates 22,500 stades besides the space between Chersonesus and Symboli (in the Krimea), 220 more; total 22,720: which, at 700 to a degree, give 2434 Roman miles. Strabo, however, roundly gives 25,000 in another place (p. 125.), equal to 2678 Roman miles. The former number, being *particularized*, ought to be preferred.

Thus the difference between the present result and Agrippa is 60 Roman miles only; and between it and Strabo, 42. The present result is within 5, a mean between Strabo and Agrippa.

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would not, on the whole, deviate much from a straight line [1].

The area of the Black Sea differs but little from that of the Caspian. The Black Sea and Mœotis, taken together, are about $\frac{1}{24}$ larger than the Caspian; but the Black Sea *alone* is smaller than the Caspian [2].

The principal difficulty in the present task, of comparing the distances in Arrian with those on the actual geography, arises from the diversity of scales on which the Periplus is formed [3]. For the part given on report has a shorter stade than that visited by Arrian by $\frac{1}{25}$ part. And the former approaches the nearest to the ancient Itinerary stade of the Greeks, as the latter to that used by Strabo and Eratosthenes. There is no question, but that in every case the standard is the result of computation,

[1] Strabo says, those who sailed into the Euxine saw Carambis on the one hand, and the mountains over *Criu Metopon* on the other. This they might do in very clear weather, and not otherwise; for although the mountains of the Krimea are very lofty, yet Carambis is not eminently so. When in the middle, the land would be 24 leagues distant on each side.

[2]

	G. miles.
Greatest length of the Black Sea, from west to east,	606
Greatest length of the Caspian Sea, from north to south	636
Breadth of the Black Sea	339 to 134
Breadth of the Caspian Sea	400 to 103

[3] Or, at least, the different proportions that appear on the application of the numbers in the Periplus, to the actual geography.

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and not of admeasurement: but how nearly computations may be brought to the truth, by dint of experience, is very well understood by practical men: and the distance above given, between the two *Bosphori*, is no slight proof of it.

With respect to the distances given on report to Arrian, around the north side of the Euxine, it is probable that they were communicated by different persons; since, in so long an extent of coast (1100 miles), and that too, broken and unconnected in many parts, a proper knowledge in detail could not be expected from a single individual.

As the scale of the stade in this case can only be ascertained by a comparison of the distances given in the Periplus, with those on the construction, it was necessary, in the first instance, to go into the investigation of the entire subject of the coasts of the Euxine. But we shall only communicate, in this place, an abstract of the general results; merely that the reader may be put in possession, at the outset, of some rule by which to guide his opinion on the subject before him.

In order to perform our present work at large, with any kind of accuracy and clearness, it became necessary to divide the space into *fit* portions for investigation: a mode that the reader, in the course of his progress, will find to have been no less necessary than convenient.

The space is accordingly divided into eight parts, or chapters; of which, the two first include the whole of that part which is corrected by M. de Beauchamp's own observations along the southern coast, to Tre-

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bizond. The third, from Trebizond to Dioscurias, contains the whole of Arrian's *own proper* survey. (So that the first three parts contain all that Arrian had himself seen.) The fourth goes to the Cimmerian Bosphorus and the Krimea. The fifth along the southern coast of the Krimea to Sebastopol. The sixth along the western side of the Krimea and Scythia, to the mouth of the Borysthenes. The seventh goes from the Borysthenes to *Tomis:* and the eighth, and last, from Tomis to the Thracian Bosphorus, from whence we set out. And these chapters are again subdivided into sections.

But previous to entering on the subject at large, we shall give the mean results of the enquiries into the standard of the stade, formed on a comparison between the Periplus and the actual geography.

Between the Bosphorus (canal of Constantinople) and Trebizond.

Intervals of space.	Geog. miles.	Stades in the Periplus.	Proport. to a degree.
1. Bosphorus to Heraclea . . .	122½	1460	715
2. Heraclea to Carambis	115¼	1170	600
3. Carambis to Sinope	93¾	1060	678
4. Sinope to Amisus (Samsoun) .	77¼	1020	790
5. Samsoun to Thermé river . . .	35½	560	946
6. Thermé to *Cerasus* (Keresoun) .	87¼	1020	702
7. Keresoun to Trebizond . . .	84	745	532
	615	7035	686

But as the two results, 5 and 7, are so wide from the rest, and as the errors of No. 5 will be made to appear in the course of the enquiry, it will be better

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to lay both out of the question in the calculation; and then the account will stand thus:

Geog. miles.	Stades in the Periplus.	Proport. to a degree.
$495\frac{1}{2}$	5730	694

There are also errors in the articles 2 and 4, which will be noticed in the course of the discussion. They seem, however, to balance one another.

Between Trebizond and Dioscurias, Arrian's *own* survey, are the following particulars:

Intervals of space.	Geog. miles.	Stades in the Periplus.	Proport. to a degree.
1. Trebizond to Gonieh	78	1000	769
2. To the Phasis	41	450	660
3. To Dioscurias	73	810	666
	192	2260	698

Here the very great difference in the proportions between the first and the two last articles, is striking, and seems to point to some error in the first. Strabo reckons 950 instead of 1000 stades; and the Turkish report confines the distance to 78.

Thus, the general scale of the southern side of the Euxine appears to be 694 to a degree, without taking into the account Arrian's *own* survey; concerning which, as we have seen, there may exist some doubt. We conclude that he set down the distances along the south coast at the rate at which they were commonly taken; and had been, probably, for ages before.

We come next to a comparison of the distances on the north side of the Euxine.

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It must previously be remarked, that between the Borysthenes and the Cimmerian Bosphorus, about $\frac{1}{3}$ of the northern side, the distances given cannot be brought into comparison with the actual geography; either by reason of errors, or of uncertainty. Not but that it may be employed in establishing of positions, when checked in the detail by other authorities; but it is deficient as a portion of a continued chain of distance [1]. This interval, therefore, being withdrawn from the account, the statement will be as follows:

	G. miles.	Stades given.	Proport. to a degree.
1. From the *Bosphorus* of *Thrace* to *Tomis*	$251\frac{1}{4}$	2920	700
2. From *Tomis* to the mouth of the Borysthenes	$216\frac{1}{2}$	2720	749
3. From the *Cimmerian Bosphorus* to *Dioscurias*	$233\frac{1}{2}$	[2] 2790	717
	$701\frac{1}{4}$	8430	722

It appears then, that there is a considerable difference between the scale of the stade on the north and that on the south of the Euxine; the one requiring 722 to make a degree, whilst 694 are suffi-

[1] Along the southern coast of the Krimea, following the statement of Pliny, (Arrian's being corrupted,) 710 to a degree appears to be the standard. On the west side the numbers are doubtful; but along the coast of Scythia, Tendra, &c. about 710 will also agree. So that in the parts rejected as *data*, a ratio seems to prevail, that is, between those on the N. and S., taken generally.

[2] Corrected from 2890; for reasons that will be shewn hereafter.

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cient on the opposite side; that is, a difference of $\frac{1}{25}$ part.

It may be observed, that the result of the examination of the north side agrees almost exactly with the mean of all the Greek Itinerary stades, collected in the Geogr. Syst. of Herodotus; which was 718. And it may further be observed, that, in no part of the enquiry does any thing like *the Olympic* stade appear. On the contrary, the general result of the comparison of the stade in the Euxine seems to prove what has been advanced in the just mentioned dissertation on the Greek Itinerary stade; namely, that the standard of that stade differed but little from 500 Greek feet.

We come now to the examination of the detail of the Periplus of Arrian; beginning at the Bosphorus of Thrace, and going eastward [1].

[1] Celestial observations along the north and west of the Euxine: those on the south are already given in Vol. I. page 308.

	Lat.	Long.
Ismael . . .	45° 21′	28° 50′
Odessa . . .	46°	30°
Kerson . . .	46° 38′ 30″	32° 40′
Koslov . . .	45°	33°
Sebastopol . .	44° 41′ 30″	33° 35′
Jenikala . . .	45° 21′	36° 26½′
Taman . . .	45° 12′ 15″	36° 34′
Taganrock . .	47° 12′ 40″	38° 38¾

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SECTION I.

From the Bosphorus of Thrace (canal of Constantinople) to Calpe, now Kirpe, or Karpah.

THIS division is short, in respect of space, but requires some discussion.

Heraclea is the first place of *observation* for the longitude, beyond Constantinople: but Kefken, near Calpe, is determined by *time-keeper* observation. The longitude of Heraclea, according to M. de Beauchamp, is 31° 29′; but having placed Trebizond 7½ min. more to the west than his observation, and likewise proportioned all the intermediate positions, Heraclea, by this correction, falls in 31° 25′. Its latitude is 41° 18′.

Kefken is placed in long. 30° 13′ 20″. The latitude is not given.

Arrian's Periplus commences at Byzantium, or Constantinople; thence passing through the Temple of *Jupiter Urius* to *Rebas*, on the open shore of the Euxine, now Rewa; which place may be regarded as our *point of departure*.

It will first be proper to place Rewa, and the site of the temple (now a fortress named Kivak), in respect of Constantinople.

A chart of the canal of Constantinople, by our illustrious countryman, Admiral Sir Sidney Smith, has been obligingly communicated by Sir James Bland Burges. It appears to give the form of that celebrated strait with more fidelity than any other that has appeared:

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presumptive proofs of which are, that it clearly explains the *phænomena* of the *harbour current* of Constantinople; and proves the utility, (at least, in respect of commanding distance,) of Baron Tott's batteries, at the entrance of the canal, from the Black Sea; which, according to the former plans, appeared useless and unmeaning.

But the scale of this chart seems to be wrong: for Tarapia is by *observation* 7 min. to the N. of the Seraglio point, and yet the chart allows no more than $8\frac{3}{4}$ from the Seraglio to the Castles (Jup. Ur.) We have therefore corrected the scale by the above difference of latitude, preserving Sir Sidney's bearings and proportions. This correction agrees with M. Kauffer's chart.

The Castle of Kivak (Temple of *Jupiter Urius*) will then be $10\frac{1}{2}$ from the Seraglio, 4·9 east of it, and in lat. 41° 10′ 30″. The distance, in Arrian, is 120 stades; which agrees. The Light House of Europe is placed 14 from the Seraglio, 5·8 east from it. Rewa, in Sir Sidney Smith's chart, is by the same suite of proportions 4·2 from the Temple (or Castle), or less than 50 stades, although 90 are found in Arrian. Even if the measure be taken round the coast, between the Castle and Rewa, as the Periplus most probably intended, yet $5\frac{1}{2}$ G. miles, or 65 stades, are the utmost that can be made out.

Rewah, or *Rebas*, then becomes the point of departure[1] for the Periplus of Arrian. He allows 660

[1] As Arrian's line goes *obliquely* from a point on the *Bosphorus* to another on the open coast of the Euxine, no account is taken

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stades between *Rebas* and *Calpe;* 800 between the latter and *Heraclea:* total 1460.

We trace along this coast, according to the detail in the Periplus, 55½ G. miles between Rebas and Calpe; 67 between the latter and Heraclea: total 122½ G. miles. The form of the coast is taken generally from M. de Beauchamp's chart, modified in some degree, by a reference to that of Ibrahim Effendi, and to the remarks of some modern travellers. The popular estimation of the distance, as well as its distribution, also agrees to the celestial observations for the longitude. For it being reckoned 60 hours from Constantinople to Heraclea, of which 8 are reckoned to Rewa, 24 to Kirpe, and 28 to Heraclea, the 24 allow an interval of 56½ G. miles between Rewa and Kirpe, 66 between Kirpe and Heraclea, which is almost exactly the proportion on the construction.

It will be found on calculation, that the 1460 stades of the Periplus, between Rebas and Heraclea, through a space of 122½ G. miles, give a proportion of 715 to a degree: and also that the two intervals between Rebas and Calpe, Calpe and Heraclea, agree so nearly with the numbers of stades respectively given, that the proportion on the first would be 713½; on the second, 716½ [1].

of the relative position of the entrance of the canal. Moreover, Arrian closes his Periplus at the same temple, from the *Cyanæan* islands. This *gap* will be allowed for at the end.

[1] M. de Beauchamp has given, in his Memoir on the Euxine, &c. (Mem. sur l'Egypte, vol. ii.) the distances in Turkish miles between the canal of Constantinople and the river Phasis. The

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We shall next speak a word respecting the detail of distances and positions in the first interval to Calpe; both in respect of the Periplus and of modern geography.

From Rebas Arrian has three intervals of 150 stades each, leading successively to *Acra Melæna*, the river *Artanes*, and that of *Psilis*. And these answer respectively to Akili, or Kalin Acroz (the Black Cape), Shala or Shily river, and that of Aghoah, or Akowah; and from *Psilis* to *Calpe* was 210 stadia: total 660.

The following table will shew at one view the comparative positions and distances.

		Perip.	G. m.	Hrs.	Stades prop.
Rebas to *Acra Melæna*	Rewa to Akili	150	$12\frac{1}{2}$	9	150
Acra Melæna to *Artanes*	Akili to Shala	150	$9\frac{1}{2}$		113
Artanes to *Psilis* . .	Shala to Aghoah	150	$12\frac{3}{4}$	6	150
Psilis to *Calpe*[1] . . .	Aghoah to Kirpe	210	$20\frac{3}{4}$	9	247
		660	$55\frac{1}{2}$	24	660

general result, calculated at 900, along the south coast of the Euxine, is 86·8 or 87 to a degree; that is, the same as the Greek mile and Russian werst: although M. de Beauchamp reckons them at 100 to a degree.

Here follow the particulars as far as Trabezon:

	G. miles.	Turkish miles. Given.	True prop.
From the Bosphorus to Arackali	$125\frac{1}{2}$	183	182
Thence to Karempe . .	$115\frac{1}{4}$	164	167
Sinope . . .	$93\frac{3}{4}$	127	135
Tarmeh river .	$112\frac{3}{4}$	175	164
Trabezon . .	$171\frac{1}{4}$	246	247
	$618\frac{1}{2}$	895	895

[1] The Theodosian Tables have 75 Roman miles between the

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Had the author been left to his own judgment merely on the subject of Kirpe, or *Calpe*, he should have supposed it to have been the same with M. de Beauchamp's *Kefken*. But he has been informed, from what ought to be deemed the best authority, that they are perfectly distinct. First in order from the Bosphorus is Kutchuk Kefken, and afterwards, a league further on, is *Bujuk* Kefken (or the Greater, as *Kutchuk* means the Lesser), and this is the port of M. de Beauchamp. And finally, at 2 leagues further on, is Kirpe. Moreover, Kirpe is situated at the projection of the coast, *the farthest advanced into the sea, towards an island*, which answers to that formerly called *Thynias* or *Apollonia*.

In confirmation of this statement, there are given in the chart of the Euxine (No. XII. letter I.) three distinct sketches of this part of the coast: the 1st from Ibrahim Effendi, who distinguishes all the three ports. 2. From M. Hammer, before quoted; and 3. From M. de Beauchamp, who omits the *port* of Kirpe altogether [1].

altars and *Artanes*, but which *latter* is doubtless meant for *Calpe*. These 75 MP. are equal to $53\frac{1}{2}$ G. miles, direct; and deducting $4\frac{1}{4}$ for the distance of the altars from Rewa, $49\frac{1}{4}$ remain; or $6\frac{1}{4}$ short of the construction.

[1] But M. de Beauchamp took, at Heraclea, the bearing of *Cape Kirpe*; which seems to prove that he supposed that Kirpe was situated at the point, although he omits it in its place.

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SECTION II.

Calpe, or Kirpe, to Heraclea.

The distance on the construction between these two has already been stated at 67 G. miles; and Arrian's number of stades 800, giving a proportion of 716 to 1°.

Table of distances between *Kirpe* and *Heraclea.*

	Arrian stades.		Proportioned on Ibrahim's chart.
Calpe to *Rhoe* . . . 20			
Rhoe to *Apollonia* Island 20	240	Kirpe to Sackariah	220
Apollonia to *Chelæ* . . 20			
Sangarius river . . . 180			
Hyppius river . . .	180	Malin river[1] . . .	175
Lillium 100	160	Halbali river . .	170
Elæum 60			
Cales river	120	Kabasacal . . .	112
Lycus river 80	100	Arakaly	123
Heraclea 20			
	800		800

Thus, the comparison between the Periplus and the actual geography is very satisfactory on the whole; but the scale of the stade smaller here than farther eastward.

But there is a difficulty in reconciling the position of the island of *Apollonia,* or *Thynias,* with the

[1] M. Delisle writes the name of this river *Lippoo,* in his modern maps.

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Periplus. According to the latter, we are to look for the island at 40 stadia from Calpe, and very close to the shore. But this is not the description found in M. de Beauchamp, who places it very far beyond Kirpe, allowing that port to be 4 miles beyond Kefken, and not very close to the shore. But Marcian allows 60 stadia between Kirpe and the island, which may have been nearer the truth.

At all events, a caution is necessary in this place, that travellers who visit the spot may be induced to examine the respective positions of Kefken, Kirpe, and the island; in order that the question may be set at rest. It is also to be remarked, that we have no *modern* description of the port of Calpe, or Kirpe.

As Arrian allows 1460 stades from *Rebas* to *Heraclea*, and 1550 from the altar of *Jupiter Urius*, so Strabo has 1380; Pliny 1600; and Marcian 1530.

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CHAPTER II.

This head of enquiry extends from Heraclea to Trebizond, and is divided into five intervals of space:

§. 1. Heraclea to Carambis.
2. Carambis to Sinope.
3. Sinope to the river Thermodon.
4. Thermodon to Cerasus.
5. Cerasus to Trebizond.

SECTION I.

Heraclea to Carambis.

The whole ground-work of the geographical construction, within this section, is given on the authority of M. de Beauchamp, who has added, in a remarkable degree, to the stock of geographical knowledge along the southern coast of the Euxine.

Arrian allows from *Heraclea* to *Posideum* (Cape Baba) 120 stades; that is, 80 to *Metroum*, 40 to *Posideum*. Marcian allows 100 only. M. de Beauchamp's chart has $6\frac{1}{2}$ G. miles only, equal to about

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76. But the Turkish chart of Ibrahim fully justifies Arrian's distance; and even M. de Beauchamp, in his description of sailing round Cape Baba, admits a greater distance than is expressed on his chart. Here then, and as far as Cape Kilimili, we have ventured to alter his chart, as he himself acknowledges, that he could not describe the particulars of the coast, and as we have the deficiency made up in Ibrahim's chart. Accordingly, the bearing of the coast from Kilimili to Baba is less southerly than in M. de Beauchamp's original; but the distance is preserved: and we have allowed $9\frac{1}{2}$ G. miles between *Heraclea* and *Posideum*[1].

[1] Ancient Names.	Stades in Periplus.	Modern Names.	Geog. Miles.	Prop. Stades, 694.
Heraclea to *Metroum* 80 Posideum 40	120	Cape Baba . .	$9\frac{1}{2}$	120
Posideum to *Tyndarides* 45 *Nymphæum* . . . . 15 *Oxinam* 30	90	Cape Baba to Awkasana .	$8\frac{3}{4}$	100
Sandaraca . . . . 90 *Crenidas* . . . . . 60 *Psylla* . . . . . 30 *Tios*, or *Tium* . . . 90 *Billæus* river 20	290	Falios, or Filbas river .	$26\frac{1}{2}$	303
Parthenius river . . . 100	100	Bartin river .	$8\frac{3}{4}$	100
Amastris 90	90	Amasarah . .	$11\frac{3}{4}$	140
Erythrini . . . . . 60 *Cromna* . . . . . 60 *Cytorus* 90	210	Kadaros . .	$25\frac{1}{2}$	295
Ægialos . . . . . 60 *Thymena* . . . . . 90 *Carambis* 120	270	Karampah, or Karempi . .	$24\frac{1}{2}$	285
	1050		$105\frac{3}{4}$	1223

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Between *Posideum* and *Carambis* Arrian has 1050 stades, (1170 from *Heraclea)*; and the distance, through the several stages, on the construction, is 105¾ G. miles, equal to 1223 stades of the general scale of 694, along the southern coast of the Euxine, (see p. 283.) Here then is an excess of 173 stades. But most of this error is clearly detected; as the corresponding stations are so well known in modern geography; and as the distance receives a check from a land route in Pliny.

The error arises chiefly in the interval between the river *Parthenius* and *Carambis;* in which the construction has at least 50 stades more than the Periplus, between the just-mentioned river and *Amastris;* 85 between *Amastris* and *Cytorus;* and 15 more between the latter and *Carambis:* total 150 out of the 173.

The check from the land route, above alluded to, is in Pliny, lib. vi. c. 1. and 2. He allows 102 MP., equal to 72·8 G. miles from *Heraclea* to *Cytorus;* and this interval on the construction is actually 74. And in effect, the eight stations in the Periplus, between *Posideum* and the *Parthenius,* agree very well.

It appears that the mouths of the *Billæus* and *Parthenius* rivers are really as the Periplus describes; that is, about 100 stadia from each other.

Carambis is given in the Periplus at 270 stadia from *Cytorus;* and we measure on the construction 285. It must be remarked, that M. de Beauchamp himself was not perfectly satisfied with its position; although, in the view of *general geography,* sufficiently exact. This famous promontory bears at

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present the name of Karampah, or Karempe; but although generally supposed to be the farthest advanced of the land of Asia Minor towards the Krimea, is not so, as the promontory near Sinope (see the next article) advances farther to the northward.

Besides the ancient names of *Carambis*, *Cytorus*, and *Amastris*, respectively traced in the modern ones of Karampah, Kadaros, and Amasarah; there are also recognised within this interval *Oxina*, in Awkasana; and the two rivers, *Billæus* and *Parthenius*, in Falios and Bartin.

SECTION II.

Carambis to Sinope.

Between these Arrian has 1060 stades, (or 1330 from *Cytorus*[1].) On the construction we measure 93¾ G. miles, answering to 1084 stades, on the general scale of 694 to a degree: differing, of course, but little from the Periplus[2].

[1] Pliny has 1312.

[2] Ancient Names.	Stades in Perip.	Modern Names.	Geog. Miles.	Stades of 694.
Carambis to *Zephyrium* .	60	Karampah to Ainah-boli, or Ineboli . .	18½	214
Aboni Mœnia	150			
Æginetes	150	Ghinuk . .	11¼	130
Cinolis	150	Kinoli . . .	16	186
Carried forward	510		45¾	530

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The intermediate distances have a near agreement also, upon the whole.

Ainah-boli, or Ineboli, the *Aboni mœnia* of Arrian, (*Ionopolis* of Marcian), given at 210 stadia from *Carambis*, agrees almost exactly. *Zephyrium*, lying between, at 60 stadia from *Carambis*, is not recognised, any more than the *Callistratia* and *Garium* of Marcian, respectively at 20 and 100 stades from *Carambis*.

Inichi, or Ghinuk, apparently *Æginetes*, given at 150 stadia from *Aboni*, is only 130 on the construction: but Kinoli, which succeeds, and answers to *Cinolis*, at 300 stadia from *Aboni*, (150 from *Æginetes*,) is 316 on the construction.

Stephane, 180 from *Cinolis*, in the Periplus, answers to Astafan, 194 on the construction. So that for the 690 of the Periplus, here are 724 by M. de Beauchamp's map, from *Carambis*. So that Arrian's scale here differs but little from the mean scale.

From *Stephane* to *Sinope* Arrian gives 370 stades, and these are generally made out on the map. The particulars are, *Potamus*, a position, or

Ancient Names.	Stades in Perip.	Modern Names.	Geog. Miles.	Stades of 694.
Brought forward	510		$45\frac{3}{4}$	530
Stephane	180	Astafan . .	$16\frac{3}{4}$	194
Potamus	150			
Lepte Acra	120	Ak-Liman .	$26\frac{1}{4}$	305
Harmene	60			
Sinope, (by Strabo and Marcian 50) . . .	40	Sinub . . .	5	55
	1060		$93\frac{3}{4}$	1084

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river, not known, 150 stades; *Lepte Acra*, 120; then *Harmene*, a port, 60; and finally, *Sinope*, 40. (Marcian has 50.) Thus the aggregate of the distances, as well as the particulars, may be said to coincide with the Periplus throughout this space.

There is, however, a difficulty respecting the position of Ainjah-Boran, or the extreme cape of Asia Minor, to the north of Sinope; the Indgeh of M. de Beauchamp [1].

There is a small disagreement between M. de Beauchamp's chart and his Memoir (in Decade Egyptienne, vol. ii.) The extreme northern point, called Indgeh in the chart, is 18½ G. miles to the NW. of Sinope. In the Memoir he says that it is 14. Here is the detail.

From the castle of Sinope, on the isthmus, he took the bearing of a point, which he there calls Indgeh, NW. 9 miles. But when he passed that point, he found that it had concealed a second point, in the same direction, 5 miles further on. And this second point, he says, is Cape Indgeh.

Now the chart has, besides these two points, a third, still in nearly the same direction, and 4½ miles beyond the second; that is, 18½ G. miles from Sinope; and this is called Indgeh on the chart: the Ainjah-Boran of the Turks [2]. We must conclude

[1] Ainjah-boran is, according to the orthography of my friend Mr. Wilkins, from the Arabic.

[2] The *Potamus* of the Periplus appears to fall at the extreme point of this cape. M. D'Anville places it there; and possibly may have had some notice of a river in that situation, from modern voyagers.

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that M. de Beauchamp afterwards corrected the chart without altering the Memoir.

By the Periplus, as well as by Marcian, the point at 9 G. miles to the NW. of Sinope, should be *Lepte Acra* of Arrian, and the *Syriada* of Marcian; 100 to 110 stades from Sinope.

The noted port of *Harmene*, 40 to 50 stadia N. of Sinope, answers decidedly to the *Ak Liman* (or White Port) of the present time, so clearly described by M. de Beauchamp. As Xenophon's fleet of transports made use of this port, so did the mariners of M. de Beauchamp. It appears to have been in all ages a kind of *port of refuge* for the vessels frequenting Sinope, when stormy weather was apprehended. For Sinope itself afforded nothing more than the shelter of two open bays, one on each side of the isthmus; and which might suffice in fine weather, for loading or unloading, but were not to be trusted to in bad weather. Accordingly, the port of Harmene is to Sinope what Ramsgate pier is to the merchant ships in the Downs.

It appears then, on the whole, that the Periplus agrees remarkably well with M. de Beauchamp's chart, in this quarter.

The geographical position of Sinope is very remarkable, the city itself occupying the narrow isthmus of a peninsula, 10 or 11 miles in circuit. For its description, see Tournefort, vol. iii.; and M. de Beauchamp's Memoir in *Decade Egyptienne*, vol. ii.

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SECTION III.

From Sinope to Amisus, at the river Iris; and thence to the Tarmeh, or Thermodon.

Samsoun is universally supposed to occupy the same general site as *Amisus*, being at the *embouchure* of the river of Amasia, anciently named the *Iris*, and now Casalmak.

Arrian reckons 1020 stades between Sinope and Amisus; Strabo, 900; Pliny, 1040; and Marcian, 930 [1].

[1] Ancient Names.	Stades in Periplus.	Modern Names.	Geog. Miles.	Prop. Stades, 694.
Sinope to *Carusa*	150	Sinub to Karsah	$9\frac{1}{2}$	110
Zagora	150	Kobali Aghzi	$12\frac{3}{4}$	146
Halys river mouth	300	Kizil Irmak, western mouth	25	290
Naustathmus	90	Ditto, eastern mouth	12	140
Conopeium	50			
Eusene	120	Samsoun, and mouth of the Casalmak	18	208
Amisus	160			
	1020		$77\frac{1}{4}$	894
Ancon port, and mouth of the *Iris*	160		doubt!	
Heraclea	360	River Tarmeh, or Therme	$35\frac{1}{2}$	408
Thermodon river	40			

It does not appear that the *circuit* of the peninsula of Sinope is reckoned in the Periplus: nor is it reckoned in the Tables for that reason. The Turks reckon it 16 of their miles; that is, 10 or 11 British.

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There is no question but that Arrian has greatly over-rated the distance, as will be made apparent, as well by the ground as by other ancient authorities. The distance, according to M. de Beauchamp's chart, is 77¼ G. miles; giving, on the general scale of 694 to a degree, 894 stades, or 126 less than Arrian; and nearly approximating to the reports of Strabo and Marcian.

The error will appear to lie between the mouth of the *Halys*, or Kizil Irmak, and that of the *Iris;* a place so fruitful in geographical errors of different kinds, that it is absolutely tiresome to prosecute the enquiry, howsoever necessary for the cause of truth. It seems as if a *spell* had hung over the gulf of *Amisus*, and the river *Iris*, with its *ancon*, or port, which was not to be dissipated till the visit of M. de Beauchamp to that spot.

The distance between Sinope and the mouths of the *Halys*, in the Periplus, have a general agreement with M. de Beauchamp's report. The mouth of the *Halys* in the former is the present western mouth of the Kizil Irmak; and the third mouth (called the second *marsh* in the *Periplus,*) under the name of *Conopeium*, agrees as well to the present *eastern* mouth, which discharges at a low point called Cape Kizil Irmak, and is the projecting point of a small *delta*, formed by the alluvions of the river.

Conopeium, in the Periplus, is given at 740 stades from Sinope; and by M. de Beauchamp's chart it is about 686 of those of the scale of 694 to a degree. Thus the difference, admitting the original numbers to be right, is no greater than might have been ex-

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pected to have happened, in a course of ages, to the channel of a river, flowing through its own alluvions; it being little more than 5 miles. But it is even probable that the original distances are over-rated.

Next follow, in the Periplus, *Eusene*, at 120 stades from *Conopeium;* and then, at 160 more, *Amisus:* total 280 stades. But, by the report of M. de Beauchamp, the distance cannot be more than 18 G. miles from the eastern mouth of the Kizil Irmak to the mouth of the Casalmak, or *Iris;* that is, about 208 stades, instead of 280. Tournefort even reckons the distance less; and as he coasted the shore *closely*, he could not well be mistaken. Here, then, is the *principal* source of the error of the Periplus; but doubtless the distance is also over-rated between Sinope and the Halys.

Besides these modern proofs, the notices in the Theodosian Tables amount at least to a presumptive proof. Arrian names the *first marsh* of the *Halys*, which occurs at 50 stadia short of (to the west) *Conopeium, Naustathmus;* probably one of its ancient navigable channels. Accordingly, *Conopeium* being reckoned by the Periplus 280 from *Amisus, Naustathmus* should, by the same rule, be 330. But what say the Tables? From *Naustathmus* to *Ehene* (no doubt meant for *Eusene*, as this place occurs also in Ptolemy,) is 20 MP. equal to 160 stades; and thence to *Amisus*, 8 MP., or 64: total, 224 stades, instead of 330; or 174 from *Conopeium.*

Again, Marcian allows 150 from *Conopeium* to *Amisus;* 20 thence to the river *Lycastus*, no doubt

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intended for the *Iris*, under the name of *Lycus ;* as it is well known that *one* principal branch of the Iris, if not *the* principal, was named *Lycus*. Here then are 170 stades, and no more, from the Halys at *Conopeium* to the mouth of the Iris, instead of the 280 of the Periplus.

This statement of the relative position of the mouth of the *Iris* to that of the *Halys*, is borne out also by the chart of Ibrahim Effendi, as may be seen in the map No. XII. letter I. It is probable, therefore, that the number 160, in the Periplus, between *Eusene* and *Amisus*, was originally 60.

M. de Beauchamp's Table of distances, in Turkish miles, in vol. ii. p. 126, *Mem. Egypt.*, gives 200 Turkish miles between Sinub and Auniah ; which, at 87 to 1°, are equal to 138 G. miles ; and the construction has 133¼ : so that the distances in M. de Beauchamp agree generally with the Turks.

Mouth of the river Iris, and the Ancon.

Besides the error of the Periplus, of 160 stades between *Eusene* and *Amisus*, there is a second of a like number, between *Amisus* and the mouth of the *Iris*, or *Ancon ;* although every modern authority tends to prove that *Amisus* (Samsoun) was very near the mouth of the river : and Marcian evidently meant to say that the distance was 20 stadia only, (the *Lycastus* representing the *Lycus*, and this latter the

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Iris, though only the name of a principal branch of it [1].)

But it is, nevertheless, certain that the Theodosian Tables and Pliny are in the same story with Arrian, with respect to the distance between Amisus and the eastern stations of *Heraclea* and *Polemonium;* Pliny too, who wrote before Arrian: so that the error, if such, does not seem to have originated with Arrian. But Strabo, who wrote before either of the other three, and was himself born on the banks of the *Iris* (at Amasia), appears to have thought differently of the matter, by placing the plain of *Themiscyra* at 60 stadia only from *Amisus;* and by conducting the *Iris* through that plain. And also by his general distance from *Amisus* to *Trapezus*, which is 125 stades *less* than Arrian's; as if the greatest part of the 160 between Amisus and the Iris was a mistake. We find Strabo also more correct than Arrian in the distance between Sinope and Amisus: and that difference, amounting to nearly the error in excess, between *Eusene* and *Amisus*.

No doubt, however, can be entertained, respecting the *existence* of such a *port* as that of *Ancon;* for it is mentioned by others of the ancients, as well as Arrian. The error lay in separating it so far from *Amisus*.

Arrian says, "the port of *Ancon*, where the river *Iris* falls into the sea, is 160 stadia from *Amisus*,

[1] Pliny (lib. vi. c. 3.) mentions the *town* of *Lycastum* and river of *Chadisia*, beyond *Amisus;* and the river *Iris* distinct from the other. There seems to have been much confusion in the geography of this quarter.

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the port of *Heraclea*, 360 beyond the *Ancon*; and the river of *Thermodon*, 40 beyond the *Heraclea*." Total 560 stadia, between *Amisus* and the river *Thermodon* [1]. But, on M. de Beauchamp's chart, no more than 35½ G. miles are measured, equal to about 408 stades of 694 to a degree, between Samsoun, at the mouth of the Casalmak *(Iris)*, and the river of Therme, or Tarmeh. The chart of Ibrahim Effendi confirms the statement of M. de Beauchamp. In this chart, a large river [2] discharges itself, a little way to the eastward of Samsoun, and at 25 G. miles in the same direction, from the eastern mouth of the Kizil Irmak, 15½ to the SW. of Cape Sharshamba. These measures, in M. de Beauchamp, are respectively 18 and 13. It may be added, that this chart of Ibrahim's resembles that of M. de Beauchamp, in this quarter, as much as any coarse performance can resemble another, that has pretensions to neatness and accuracy.

[1] The Theodosian Tables give, from *Amisus* to *Ancon*, 24 MP.; say 192 stades. Thence to *Heraclea*, 40 MP., or 320 stades; that is, 412 for the 420 in the Periplus.

Pliny has, from *Amisus* to *Polemonium*, 220 MP.; read 120; these, at 8, are equal to 960 stades, and Arrian has 940.

In the Tables, 30 MP. are given between *Heraclea* and *Oenoe* (Unieh), or 240 stadia. Arrian has 220 in detail. This shews that Heraclea, in the same Tables, agrees to the positions on the east, though not to Amisus, on the west; probably on occasion of the error at the *Ancon*.

[2] Unfortunately, the name *Tarmeh* (for *Thermodon*) is written to the river at Samsoun, in Ibrahim's chart, instead of the next river, eastward. But there can be no doubt concerning the identity of the river.

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It has been stated above, in speaking of the position of *Amisus*, that M. Tournefort coasted this shore. He says (vol. iii.) that when he had gone 20 miles[1] beyond the mouth of the Halys, (by which is to be understood the eastern opening,) he "entered the mouth of the *Iris*;" and it is implied, though not directly expressed, that he had *previously* passed the supposed site of *Amisus*. Nothing seems to be more clear, than that the mouth of the river, which was anciently called *Iris*, and which now discharges itself at Samsoun, is not more than about 20 miles from the eastern mouth of the *Halys*; and had there been a gulf or estuary penetrating the land, within the opening of the *Iris*, Tournefort must have seen it, and would have probably remarked it, if we may judge from the general tenor of his observations.

And, in effect, this testimony of his, respecting the mouth of the river seen at 20 miles to the eastward of the Kizil Irmak, or *Halys*, ought to be received as a document of much more decisive authority than any ancient one, as being free from the corruptions incident to records so often copied, and moreover resting on the authority of high character for accuracy.

[1] As Frenchmen are not in the habit of employing *miles* to express distances, it is necessary to enquire what species of miles are intended. It appears, then, from Tournefort's account of their navigation, from the *Bosphorus*, eastward, that *Turkish* miles are intended, as he reckons no less than 154 along shore, from the river of Rewa to Arakali, which is 103 G. miles.

This being the case, his 20 miles cannot be reckoned more than 14 British miles.

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Nor can the authority of Strabo (p. 547) be slighted, when he says "that the plain of *Themiscyra* is at 60 stadia only from *Amisus*, and that "the *Iris* and *Thermodon flow through* the plain of *Themiscyra*." Are we not told here, that the plain in question *extends to the Iris*, since that river flows through it, and, it is to be presumed, in its way to *Amisus?* It, therefore, does away the 160 stadia of Arrian, between *Amisus* and the mouth of the *Iris*, which mouth and the *Ancon* certainly appear to be placed by him in the same spot: "The *Ancon*, where the *Iris* falls into the sea."

Upon the whole, then, the error appears to have been, in giving a distance of 160 stades to a very short space, which can hardly be reckoned 20. It has appeared that the distance on the construction, between the Samsoun river and the Tarmeh, is no more than $35\frac{1}{2}$ G. miles, equal to 408 stades. Accordingly, if from Arrian's 560 we take 160, we have 400 for the ground between the *Ancon* and *Thermodon*, which approaches so nearly to the former number, that, with the testimonies of Tournefort, Strabo, and Marcian, we may easily comprehend the nature of the error.

Gulf of Amisus.

It will be proper, in this place, to speak of the great error of the ancients, and of the moderns who have followed them, in describing so great a gulf,

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under the names of Amisus and Samsoun, when no gulf of any considerable dimensions existed, as M. de Beauchamp pointedly remarks in his Memoir. (*Decade*, vol. ii. p. 144.)

The truth seems to have been, that the ancients did not know how otherwise to dispose of so great a space, as that given by the Periplus, &c., between the *Halys* and *Thermodon* rivers, when, as has appeared, there were two spaces of 160 stadia each, given to a space that contained no more than 80 or 90. So that a length of 230 to 240 stadia was employed in describing a gulf, penetrating very deep within the land; so as, says Pliny, to leave only 200 Roman miles between that and the gulf of Issus. M. D'Anville followed this system; for, in his time, no accurate tracing of this coast had reached Europe, and he moreover abridged Asia Minor of a whole degree of latitude in its breadth.

SECTION IV.

From the Thermodon river to Cerasus, or Cerazunte, (Tarmeh to Keresoun, or Kirason).

The Periplus has 1020 stades between the Thermodon river and Cerasus; which space, on M. de Beauchamp's chart, measures 87¼ G. miles, equal to 1009 stades of 694 to a degree. So that the aggregate agrees as nearly as possible, as the detail will

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also be found to do. The space is divided into 13 stages, as in the note [1].

From the *Thermodon* to *Oenoe* (Auniah or Unieh), passing the mouths of two rivers, unknown in modern geography, is 180 stadia in the Periplus. The construction (from M. de Beauchamp) has $20\frac{1}{2}$ G. miles, equal to 236 stades, or 56 more than Arrian; but the Theodosian Tables, having 30 MP., or 240 stades from *Heraclea*, (which was 40 stades to the westward of the Thermodon,) gives, of course, a complement of 200 for the 180 in Arrian. Even if the mouths of rivers continued in one place, no great exactness could be expected, as points to reckon distances from; but here great changes must be

[1] Ancient Names.	Stades in Perip.	Modern Names.	Geog. Miles.	Prop. Stades of 694.
Thermodon river to *Beris* river	90	Tarmeh river to Auniah or Unieh	$20\frac{1}{2}$	238
Thoaris river	60			
Oenoe	30			
Phigamus	40	Fatsa	$10\frac{1}{4}$	120
Phadisana	50			
Polemonium	10	Cape Yassoun, or Jason	$13\frac{1}{4}$	154
Jasonium promon.	130			
Cilices island	15	Wawanah		
Boonah	75			
Cotyora	90			
Melanthius	60	Kirason, or Kiresoun	43	497
Pharmatenus	150			
Cerasus, or *Pharnacia*	120			
	1020		$87\frac{1}{4}$	1009

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expected, in so great a lapse of time, and a difference of 20 stadia is nothing.

Phadisana, 190 stades beyond *Oenoe,* answers to *Fatsa,* $10\frac{1}{2}$ G. miles, or 122 stades, on the map; falling short 68. But taking the two last stages together, amounting to 370 in the Periplus, it will be found that the aggregate distance, 31 G. miles, will come within 12; that is, 358.

Polemonium. This was the seat of king Polemon, sovereign of that division of Pontus known by his name. It was 10 stadia *beyond Phadisana,* and described as a *city,* whilst the former was said to be a fortress; it may therefore be regarded as the citadel of *Phadisana.* No traces of either are spoken of.

The promontory of *Jason,* or *Yassoun,* occurs next, at 130 stades from *Polemonium;* 140 from *Phadisana.* The construction has $13\frac{1}{4}$ from the latter, equal to 154 stades of the mean scale.

This promontory projects in a very extraordinary manner, from the deep gulfs on each side of it; so as to present to navigators a point removed from the great body of the coast. It seems, therefore, perfectly natural that the Argonauts (as they are said to do by Apollonius Rhodius) should have chosen it as a landing place. He names it *Genetes;* which name of a tribe still exists in the country, within Kirason, or *Cerasus,* and may certainly be taken, at large, for the same name as *Janik,* the present name of the sea-coast of the ancient PONTUS, from the river *Iris* to Trebizond[1].

[1] M. de Beauchamp remarked an ancient square tower on the

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From Cape *Jason* to *Cerasus*, in the Periplus, is 510. M. de Beauchamp has 43 G. miles, equal to 497; a difference hardly worth considering.

Cotyora, a place noted on occasion of the long halt made there by the Ten Thousand, and from whence they finally embarked for Byzantium, after a fatiguing march from Trebizond, has its position very exactly marked on the chart, from the distances given in the Periplus, but its site has not been pointed out. From a city, in the time of Xenophon, it had declined to a small village, in that of Arrian; but then five centuries and a half had elapsed.

Although the ancient and modern measures agree so nearly in the aggregate, between Cape Jason and Cerasus, yet too little is known of the positions, in modern geography, to allow of making comparisons in the detail. *Boona*, answering to Wawana, is the only *name* recognised; the *position* is not known.

Cerasus had also the name of *Pharnacea*, as we learn from Arrian himself. Ptolemy reckons them separate places, but this is an error.

The Anabasis carries the Greek army, in three marches, from Trebizond to *Cerazunte*, or *Cerasus*. But this must be an error of transcribers, who have

pitch of this cape. Can this be the remains of one of the monuments erected by the Argonauts? We are told that the coasts of the Euxine, the Propontis, and the Hellespont, had monuments of this expedition. Cape Jason, as a prominent position, might have had one of these. Yet Arrian calls it a fabulous story! But he appears inconsistent in this respect; as in another place he seems to speak seriously of the Argo, as the first ship on record, and of her passing by the *Cyanæan* rocks.

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written Cerazunte for some other name; for this place is between five and six days' march from Trebizond.

The Theodosian Tables do not mention the river Thermodon, but taking the distance in them, from *Oenoe* to *Cerasus*, (by the land route, of course,) we have 79 MP., equal to $56\frac{1}{2}$ G. miles, in direct distance, and there are 53 on the construction; so that, as this leaves 57 G. miles, in direct distance, between Cerasus and Trebizond, it is impossible that the Greeks could have reached it in 3 marches.

SECTION V.

Cerasus, or Kiresoun, to Trebizond.

This space, for which Arrian allows only 745 stades, measures 84 G. miles on the construction; equal to 971 stades, on the scale of 694 to a degree; and this is the most discordant part of the Periplus [1].

That the relative positions of Kirasoun and Trebizond are generally right, cannot be doubted, as M. de Beauchamp determined the difference of longitude

[1] It appears, however, that the Turkish account agrees with M. de Beauchamp; for between Cape Yassoun and Trabezon, the Turkish miles are 186, which agree to the same proportion of the degree as those between Constantinople and Cape Yassoun; there are here 88, within a very small fraction, and elsewhere $88\frac{1}{2}$.

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between them by time-keeper observations. The Theodosian Tables also contain a check, by the land route. These give 80 MP., equal to $57\frac{1}{4}$ G. miles, and the construction has 61; differing less than 4 miles. And if the whole distance from Oenoe to Trebizond be taken (from the same authority), 159 MP., equal to $113\frac{1}{2}$ G. miles, the agreement is very close indeed, as the construction has 114. Thus, the direct distance appears to have been well known to the ancients.

But in the *coasting* distance here, the ancient authorities generally go too low. As Arrian has only 745, so Pliny has 100 MP. from *Pharnacea*, or 800 stades, and yet the *direct* distance is more than 700, along a coast very deeply indented by bays and gulfs, so as to increase the trace of the coast at least one third [1].

Nor is the error traceable, as in some former cases, to particular stages, whilst others agree; but there

[1] Ancient Names.	Stades in Perip.	Modern Names.	Geog. Miles.	Prop. Stades of 694.
Cerasus to *Arhentius* island	30	Kirason to Zafarah	$16\frac{1}{2}$	190
Zephyrium	120			
Tripolis	90	Tiraboli	13	150
Argyria	20	Kerelu	13	150
Philocalea	90			
Coralla	100	Kora-bali	8	92
Hieron-Orus	150	Cape Jorus	15	175
Cordyla	40	Trabezon, or Trebizond	$18\frac{1}{2}$	214
Hermonassa	45			
Trapezus	60			
	745		84	971

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is an almost universal excess of the distance over the numbers of the Periplus. One can only conceive that they did not suppose the bays or indentations to be so *deep* as they really are.

The following instances may be adduced, in proof of the general excess of distance.

From *Cerasus* to *Zephyrium*, the Periplus has 150 stadia; but, by M. de Beauchamp, a vessel cannot sail from one to the other, *round* Kara Boroun, without going 16 or 17 G. miles; that is, 180 to 190 stadia.

Tripolis is given at 90 stadia from *Zephyrium*, but is 13 G. miles, or 150 stades.

From *Tripolis* to *Hieron-orus*, the Periplus gives 360 stadia; but it is nearly that distance on a straight line; but the distance *round* is 36 G. miles, equal to 417 stadia.

Within the above space many of the stations in the Periplus are recognised by name, in modern geography, and most of the others from general position; as *Zephyrium*, in Zafarah; *Tripolis*, in Tiraboli; *Philocalea*, in Kerelu; *Coralla*, in Korabali; *Hermonassa*, in Balatana; and *Hieron-orus*, in Cape Jorus, or Yorus.

The promontory of *Hieron-orus* is the termination of the mountain of *Theches*, or Teki, from the inland part of which the Ten Thousand first saw the sea, on their return, at the distance of 45 miles from the neighbourhood of Irizah. The promontory is a bold projection of the coast, of 10 miles in length, between Tripolis and Trebizond, forming a bay on either side; that to the east being Balatana, the

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port of Trebizond; and on the west, that of Korabali, or *Coralla*, which seems to have been the place which Xenophon reached on the third march from Trebizond, and not *Cerazunt* or Cerasus, as is said in the copies of the *Anabasis*.

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CHAPTER III.

From Trebizond, or Trapezus, to Dioscurias (Iskuriah), or Sebastopolis.

This space contains the whole of what may be termed Arrian's own survey; that is, the part to which his attention was particularly directed. It has, therefore, been thrown together into one point of view.

It is divided into three articles:—1. From Trapezus, or Trebizond, to *Apsarus*. 2. From *Apsarus* to the *Phasis*. And 3. From the *Phasis to Dioscurias*.

SECTION I.

Trapezus to Apsarus.

It has been already stated that Arrian's distance of 100 stadia, between Trebizond and *Apsarus*, (taken for Gonieh,) is excessive; since the Turkish report to M. de Beauchamp was 130 of their miles, of 100 to a degree; that is, strictly 78 G. miles; but on

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allowance for the numerous indentings of the coast, $74\frac{3}{4}$ [1], on a straight line.

The Russians afford no lights here, as their new chart is remarkably defective in this part. We have, therefore, adopted the $74\frac{3}{4}$ of the Turks, and also the parallel of 41° 24′, for Gonieh, or *Apsarus*.

Thus we have abridged this part of Arrian's survey 9 G. miles, relying on the Turkish pilots' reports. The chart of Ibrahim has $81\frac{1}{2}$ G. miles direct; that is, 2 short of Arrian, 7 beyond our assumed position. It is too coarse a performance to be relied on, for absolute authority, and it is probable that the reports of the Turkish pilots at Trebizond is preferable to any of the other documents.

Since there is no tolerable chart between Trebizond and the Phasis, it might be thought useless to compare the different intervals of distance in the Periplus, with those on the Map; however, it is proper that the stations and distances should be given.

Many of the ancient names and positions are recognised in this line, in the chart of Ibrahim. Soramanah answers to *Hyssus;* and Awaf, Irizah, Aätanah, Arkâwah respectively to *Ophis, Rhizius, Athenas* and *Archabis*.

Aätanah, or Athenas, for whose name Arrian wishes to account, is doubtless an original name

[1] Strabo allows 1400 stades between Trebizond and the Phasis river, and between Gonieh and the Phasis, 450. Consequently, we take 950 for his distance between Trebizond and Gonieh.

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in the country, and perfectly independent of Grecian connection [1].

Not one of the many streams enumerated by Arrian are navigable on the west of the *Apsarus;* the neighbouring mountains of Mesjidi, *(Moschici)* shortening their courses, and compelling them to reach the sea singly. He, indeed, says that the *Acampsis,* 15 stadia from *Apsarus,* is navigable;

[1] Ancient Names.	Stades in Perip.	Modern Names.	Geog. Miles.	Prop. on 1000.
Trapezus to *Hyssus*	180	Trabezon to Soramanah	14	180
Ophis	90	Awaf	$9\frac{1}{2}$	120
Psychrus	30			
Calus	30	Irizah	$11\frac{1}{2}$	150
Rhizius	120			
Ascurus	30			
Adienus	60	Mapawara	$7\frac{1}{2}$	95
Athenæ	180	Aätanah	11	140
Prytanis	40			
Pyxites	90	Laros	$13\frac{1}{4}$	170
Archabis	90			
Apsarus	60	Gonieh	$11\frac{1}{4}$	145
	1000		78	1000
				Prop. on 450.
Acampsis	15			
Bathys river	75	Batum and river Shorak	$7\frac{3}{4}$	84
Acinasis	90	Kobolat	$7\frac{1}{2}$	82
Isis	90	Shakwatil	$7\frac{1}{4}$	80
Mogrus	90	Guir-golat	$10\frac{1}{2}$	117
Phasis	90	Faz river	8	87
	450		41	450

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but it is clear that the *Acinasis* is intended, being coupled with the *Isis,* the river next to it; not to mention the circumstances of the case.

Apsarus, which, in effect, answers to Gonieh, is applied by the ancient geographers, generally, to that large and deep river, which disembogues at Batum, a town 100 stadia to the NE. of Gonieh; and is the largest river of this quarter; draining, by its numerous branches, the whole country of the *Moschici.* Arrian rightly calls it *Bathys.*

The modern name of this river is Chorak, or rather Shorak; from whence, perhaps, the name of *Apshorak,* or *Apsarus,* has been formed. The Romans having a strong post at *Apsarus,* within 10 miles of it, and there being no river at Apsarus itself, its name might have been applied to this. For Apsarus was considered as the frontier post; it had a garrison of 5 cohorts; and the principal business of Arrian's visit seems to have been to inspect this and the lesser posts in its neigbourhood. All this considered, one may easily understand how the name of the chief place in the neighbourhood came to give its name to the principal river.

Ptolemy seems to have known the detail of its course very well; deriving it from the S. and SW., and thence forming a deep bend to the east, and round by the N. and NW. to the sea.

Arrian remarks, that "as far as *Apsarus,* his course lay *eastward,* on the *right* side of the Euxine; and that *Apsarus* appeared to him to terminate the Pontus when estimating its greatest length. That from thence his course was *northerly* to the river

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Chobus, (Kobi); and thence to *Singames,* (Anarghia); and from this latter, he turned to the *left* side of the Pontus, as far as the river *Hippus,* (Ilori); and from thence to *Dioscurias,*" (Iskuriah). All this is generally true; the coast turns from the eastward to the N. at *Apsarus;* but it is at the *Phasis,* and not at the *Singames,* that it begins to turn to the *left* or *northwest.* Nor is it exactly at *Apsarus* that we are to terminate the Euxine, in estimating its greatest length, but rather at the *Phasis;* for the largest line that can be drawn through the Euxine is from the gulf of Foros to the mouth of the *Phasis.* But these are trifles, in such a general view of things, as Arrian took: and he did a great deal in coming so near the truth. As for the point of termination of the Euxine, that could only be rightly understood by a person who was in possession of its whole outline. Some of the ancients fixed on the Bosphorus of Thrace for its western extremity; Dioscurias for its eastern.

Arrian expresses no idea respecting the form or general dimensions of this sea; the *circuit* only excepted.

SECTION II.

From Apsarus, or Gonieh, to the Phasis.

Arrian gives the distance from *Apsarus* to the *Phasis,* at 450 stadia, in 5 stations of 90 each. Of

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these, *Bathys* (or Batûm) at the mouth of the river of the same name, is the first. The others are, *Acinasis,* answering to the Kobolat river; *Isis,* to the Shakwa-till; the *Mogrus,* to the Guirgolat; and, finally, the *Phasis,* still called Fâsh, or Fâz; and in the Turkish chart of Ibrahim, Rion, or Rioni.

We have placed its *embouchure* in lat. 42° 4′, or 40′ N. of Gonieh; whence the *distance* between the two will be about 41 G. miles. The Russian map places it in 42° 10′; but as the Turkish pilots allow no more than 70 of their miles, equal to about 42 G. miles; that parallel would place it too far from Gonieh. Ibrahim allows only 31¼ G. miles; and Chardin reckons it 40 miles, implied to be geographic. So that, in fact, no part of the ground, between Trebizond and the *Phasis,* can be depended on, as that to the westward of Trebizond.

On this assumed distance of 41 G. miles, the 450 stadia of the Periplus give a proportion of 660 to a degree, very different from that between Trebizond and Gonieh.

SECTION III.

From the Phasis to Dioscurias.

The Periplus has 810 stades between these two points; and on the construction, which is formed from the new Russian Map of 1800, there are 73 G. miles, through the several stages mentioned in

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the Periplus; and which are easily adjusted to the Russian map, as will appear by the Table [1]. Hence, the rate is 666 stades to a degree; differing a shade only from the last interval. And the mean of these, 663, may be regarded as Arrian's *own* scale.

Arrian remarks, that about Dioscurias they had a view of Mount *Caucasus;* equal in height to the *Celtic Alps.* And that the highest part of the mountain is visible from thence, and is called *Strobilus;* where Prometheus is said to have been chained, &c.

Now this *highest part* is clearly the *Elborus* of modern times, the lofty peak of Caucasus, situated to the north of Kutais. From Dioscurias it is distant about 100 British miles; but is nearer to the Phasis by 30. The thickness of the weather, or the interposition of other mountains, may, however, have prevented its being seen from thence. It is worthy of remark, however, that it ought to be visible in clear weather from Batûm; which is the same distance from it as Dioscurias; and that with the help of

[1] Ancient Names.	Stades in Perip.	Modern Names.	Geog. Miles.	Prop. Stades.
Phasis river to *Chariens* river 90 / *Chobas* . . 90	180	Kobi, or Kopi river .	19 .	210
Singames . . .	210	Anarghia	20½ .	230
Tarsuras . . .	120	Elmu river	12 .	130
Hippus . . .	150	Ilori	8½ .	95
Astelphus . . .	30	Mokvi	4½ .	50
Dioscurias . .	120	Iskuriah	8½ .	95
	810		73 .	810

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the latitudes it might be made a most useful point in determining a series of triangles all over that corner of the Euxine, (the most deficient of any in geography), as well as to a considerable distance inland.

We cannot but regard Arrian's remark on the veracity of Herodotus, on occasion of his speaking of the tribe of *Lice-eaters*, as, at least, very uncandid. Possibly, Adrian might have held the historian in contempt; and Arrian was playing the courtier by underrating him.

But had Arrian seen so little of the manners of the lowest vulgar, as not to know that it is practised in all countries? It certainly is in ours, to the author's personal knowledge; and for the Sister Island, see Swift's *Dermot* and *Shelah*. Were the Roman vulgar, then, so much more delicate than the rest of their kind?

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CHAPTER IV.

From Dioscurias to the Cimmerian Bosphorus and the Krimea.

It may be proper to remind the reader that he is now entering on that part of the Euxine, described by Arrian from the reports of others.

The number of stades given in the Periplus, between *Dioscurias* and *Panticapæum*, taken for Kerze, or Kerch, in the Strait of Jenikale, answering to the *Cimmerian Bosphorus*, is 2890; but as it appears almost certain that there is an error in excess of 100 stades, in one of the intervals, 2790 has been taken. And the distance measured through the several points, on the authority of the Russian map, is 233½ G. miles, giving a proportion of 717 stades to a degree.

The accompanying Table shews the number of stades assigned to each interval in the Periplus; together with the distance in G. miles between the modern places that appeared to answer to those ancient places. And, finally, admitting the aggregate number to be right, there are given the numbers proportioned to each of the intervals in G. miles; so as to distribute the aggregate number of stades,

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arising on the intervals in the Periplus, between the intervals that occur in the modern arrangement. The agreement will, perhaps, be nearer than is expected [1].

[1] Table of Stations and Distances in the Periplus, compared with the actual geography between Dioscurias and Panticapæum.

Names in the Periplus.	Stades.		Names in the Russian Chart.	Geog. Miles.	Prop. Stades.	
Dioscurias to Pityus . .	350		Iskuriah to Pitchounda	$26\frac{1}{4}$	312	
Nitica . . .	150		Jiandili	13	155	
Abascus river .	90		Kenshili	$6\frac{1}{2}$	78	
		590				545
Borgys . . .	120		Ardler and Promontory . . .	$11\frac{1}{3}$	137	
Nesi . . .	60		Kamuslar . . .	10	120	
Masœtica . .	90		Makai river . . .	7	83	
Achæus river .	60					
		330				340
Promontory of Hercules .	150		A Promontory near Mamai . . .	13	155	
Another Promontory giving shelter from NW. and NE. winds .	180		Promontory and Bay of Subashi . . .	$16\frac{1}{2}$	195	
		330				350
Vetus Lazica .	120		Gulf of Kodas and Akasky . . .	$23\frac{3}{4}$	285	
Vetus Achaia .	150		Gelenjik	$24\frac{3}{4}$	296	
Pagræ Portus .	350		Sunjuk-kala . . .	$15\frac{1}{2}$	186	
Hieros Portus .	180		Anapa	$16\frac{1}{2}$	198	
Sindica . 300 Ded. error 100	200					
		1000				965
Panticapæum .	540		Kerch	$49\frac{1}{2}$	590	
		540				590
		2790		$233\frac{1}{2}$		2790

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Other names of places besides those that appear in the Periplus of Arrian are found in Pliny, Ptolemy, in the anonymous Periplus in Hudson, &c. as will appear in the sequel.

Arrian mentions a *nameless* promontory which furnished shelter for vessels from the NW. and NE. winds. This promontory, so distinguished, lay 270 stadia to the SE. of *Achaia Vetus*, 330 to the NW. of the *Achæus* river; and thence falls in our geography (founded on the distances in the Periplus,) at the outlet of the Alatsa, or Subashi River. The description agrees well; but it happens that, from the general direction of the ramifications of Mount *Caucasus*, on this coast, many promontories or points shoot out to the S. and SW.; and thus form many inlets and places of shelter of the same general description, though perhaps without a sufficient depth of water; otherwise, the characteristic distinction held out in the Periplus would have been unmeaning.

M. D'Anville has referred the position of this promontory to another situation, $22\frac{1}{2}$ G. miles more to the SE.; that is, at Soutchaly, not far to the westward of Anakopir. It will be proper to adduce the reasons for differing from so high and respectable authority; and who would possibly have decided differently, had he been possessed of our materials.

It appears by the Table, in page 325, that this promontory lies between *Dioscurias* and *Panticapæum;* 1250 stadia from the former; 1540 from the latter; (if the correction of 100 stades be admitted between *Sindica* and *Hieros).* The meeting of

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these two lines of distance falls at a mile and half to the SE. of the promontory at Subashi; that is, in the bay, in which ships may be sheltered from the NW. and NE. winds.

If the error of 100 stadia be not admitted, the lines will meet at a point $8\frac{1}{2}$ G. miles to the SE. of the bay and promontory; but still short of the *other* promontory by 14 miles; for the two are $22\frac{1}{2}$ distant from each other; and there is no inlet between, that answers to the description.

The description of the anchorage is such as to give a decided preference to that at Subashi. "A promontory under which there is shelter from the NW. and NE. winds." Of course, the land in those directions must be at *no great distance* from the anchoring place. At Subashi this appears to be the case; the estuary does not appear to be more than $2\frac{1}{2}$ miles broad between the lands on the NW. and those on the NE. But Suotchia is a very wide bay. The agreement, in point of distance, appears to be of the greatest weight.

It must not be omitted, that the promontory in question is also remarked by Ptolemy and Pliny. Ptolemy names it *Toretice;* and places it precisely in the same relative situation with our Subashi[1]; Pliny names it *Cronca,* and says that it is situated amongst the *Toretæ.* (One might hence suspect that *Cronca* was the proper name.)

It is very true that there are much fewer modern

[1] That is, midway between *Dioscurias* and *Hermonassa;* which latter is at the discharge of the river of Kuban.

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names that agree with the ancient ones in this part of the Euxine than any where else; and as those ancient names were probably given by the Greeks, it may be inferred that the Greeks had less communication with this part than any other. The ancient, as well as the modern, Abkas were probably a very barbarous and intractable people.

Amongst the few names that have a resemblance, there are, after *Dioscurias*, so well recognised in Iskuriah, Pitchunda, answering to *Pityus*; Makaë, perhaps the remains of *Achæus*; Akasky, *Achaia*. In these also the positions agree; but beyond that, northward, till we come to *Pharagora*, there is only the *Icarusa* of Pliny, answering to the Ukrash river. The *India* of Herodotus is doubtless the *Sindica* of Arrian; but not Sundjuk Kala [1], as might be supposed. In effect, between Trebizond and the Krimea, there are the fewest Greek names.

It will be proper now to account for the supposed error, in excess, of the 100 stades on this coast; in order to which, it will first be necessary to *trace back* the stations in the Periplus, from the *Cimmerian Bosphorus*, to the promontory of *Cronca*, or *Toretice*.

It will appear by the Table (page 325), that the Periplus gives 1640 stades between *Panticapæum* and the promontory; but that the space on the construction is only 130 G. miles, which are equal only to 1555 of the scale, proportioned through the whole

[1] The *district* mentioned by Herodotus (Melpom. xxviii.) might have contained Sundjuk Kala.

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interval, between Dioscurias and the Krimea; (that is of 717 to a degree); but that between the promontory and *Dioscurias*, the numbers agree within 15 stades; that is, the Periplus has 1250, and the space, 103½ G. miles, is equal to 1235 of the aforesaid proportioned stades. Consequently, it appears that the space between the promontory and *Panticapæum* is overrated in the Periplus nearly 100 stadia.

Panticapæum in the anonymous Periplus is placed at 85 stadia from the entrance of the *Palus Mœotis;* and therefore agrees to Kerze or Kerch of the present times. (Jenikala is at the very entrance itself.)

From *Panticapæum*, the Periplus allows 540 stades to *Sindica.* Anapa is 49½ G. miles from Kerch, answering to 590 stadia, at 717 to 1°; but although here is an excess of about 4 miles, yet there is no position any where in the neighbourhood that can be taken for Sindica. The entrance of the Kuban river *(Hypanis)* is only midway; and answers to the *Hermonassa* of Ptolemy.

The next station in the Periplus, (in the same retrograde order) is the *port* of *Hieros,* 300 stadia; then *Pagræ* Portus, 180; which is from the promontory, so often mentioned, 620.

Now it will be seen in the Table, and in the Chart, that after Anapa, is the port of Sudjuk-kala, (or Sundjuk-kala), 16½ G. miles, answering to 198, or say, 200 stades, of 717 to a degree; and next to that, Gelenjik, a deep inlet, or gulf, forming a port at 15½ G. miles, equal to 186 of the beforementioned stades. Now, as the Periplus and the

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actual geography have a general agreement in the *suite* of positions, and in the distances in this quarter; save in the solitary instance between *Sindica* and *Hieros*, where Sudjuk-kala is only 200 stades from Anapa, on the Map, whilst the Periplus gives 300 between *Sindica* and the port of *Hieros*, it appears not improbable, but that 200 is the true reading. What strengthens this opinion, is, that between the bays or inlets of Sudjuk-kala and Gelenjik, (which latter succeeds to Sudjuk-kala), the distance on the map is equal to 186 stades; and that given in the Periplus, between *the two ports* of *Hieros* and *Pagræ*, is 180. The suite of positions is also marked; *Sindica* is not called a *port;* and Anapa, which answers to it, is situated on an open bay. But the two that succeed it are called *ports;* and, accordingly, Sudjuk-kala and Gelenjik have each of them, particularly the last, a deep inlet, or small gulf. And they are the *only ones* on this part of the coast at all within the range of the distance given.

In the before-mentioned space of 620 stades, between the port of *Pagræ* and the promontory, there occurs, at the distance of 350 from *Pagræ*, *Achaia Vetus;* and in the chart, at about 300 from Gelenjik, is Akasky, which may perhaps be taken for *Achaia Vetus.*

Arrian's description of this coast is confined nearly to a list of names, with intermediate distances. Ptolemy gives a few more particulars. The strong wall remarked by him, in the neighbourhood of *Pityus*, (or Pitchunda), is now named Derbend, signifying a

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fortified pass or gate. His *Batu* Portus seems to have been the same with *Pagræ*, midway between the promontory of *Toretice* and *Hermonassa.* This latter may be taken for the opening of the lake into which the Kuban river flows; or may mean the Island of Taman or *Phanagora.* In the anonymous Periplus, *Hermonassa* is coupled with *Phanagora,* as if the same.

In the estimate of the above comparisons, it must be taken into the account, that the coast has never been surveyed, save only in the part between Kerch and Anapa. So that the distances on the construction rest on very different authority from those subject to the inspection of M. de Beauchamp, in the south; or of those described by the Russians on the north.

Palus Mœotis, or Sea of Azof.

The ancients varied exceedingly in their ideas of the extent of this sea; even those who had a tolerably correct idea of that of the Euxine.

Herodotus thought it almost equal to the Euxine. Strabo reckons it in length 2200 stades, between the *Cimmerian Bosphorus* and the mouth of the *Tanais;* which space is, in reality, 1800. Strabo, therefore, came the nearest amongst the ancients in the length; being about a fifth part only from the truth; but he seems to have supposed it to carry its width on towards the Tanais. Polybius supposed it

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to be 8000 stadia in circuit; Arrian and the anonymous Periplus, 9000. But it cannot be taken higher than 5500.

There appears to be an omission of matter in Arrian's Periplus after the article *Panticapæum.* He says,—" from *Panticapæum* to the river *Tanais,* which is said to divide Europe from Asia, 60 stadia." This is so evident a mistake or corruption; and being succeeded by another sentence, in itself perfectly absurd, one can only suppose that some of the original matter has been lost; and what is given, jumbled together. Probably the MS. was damaged and illegible in certain parts, and what remained legible was thus put together by ignorant transcribers.

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CHAPTER V.

From Panticapæum, in the Cimmerian Bosphorus, to Chersonesus Taurica; that is, the whole southern coast of the Krimea, from the Strait of Jenikali to Sebastopolis.

We are now arrived within the scope of the Russian surveys, and, in effect, on a coast appertaining to their proper territory; and although these surveys may not stand the test of severe pruning, yet it may be supposed that, corrected as they are, in point of general scale, by celestial observations, the outline may be sufficiently exact, to allow a comparison to be made between the ground and the ancient reports of the distance.

Since neither of the Periplus convey any idea of the form of the coasts, along which their distances are traced, it may be proper in this case to refer to Ptolemy for the ideas of the ancients respecting the *outline* of the Krimea; his being the only tabular geography of those times left on record.

This document has the greatest resemblance to the truth, on the southern coast (or the one now un-

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der discussion); and, perhaps, because it was the most frequented [1]. The western coast is very bad, for Ptolemy supposed that it ran pretty straight, from the isthmus to the *Parthenium* promontory; thereby annihilating the *Carcinitis Sinus* and its promontory. The general position of the peninsula also was wrong, being made to point too much easterly.

His *Parthenian* promontory is evidently that of Kerson, which forms the SW. extremity of the Krimea, in the Russian surveys; and it is *here* that the resemblance to the truth begins. This cape is in Ptolemy $82\frac{1}{2}$ to the S. of the isthmus of Taurica, and is really $88\frac{1}{2}$. His *Arietis frons,* or *Criu Metopon,* is greatly too far removed to the E. from *Parthenium,* and, therefore, in point of *distance,* agrees better with Cape Kirkiness, the *Criu Metopon* of the anonymous Periplus, than with Merdvinnoi (or Karadgy Borun), which appears to be that of Pliny. But laying the absolute *distance* out of the question, and regarding only the *form* of the coast, it is most likely to have been intended for Merdvinnoi, which, in the sequel, will appear to have the best title to the famous *Criu Metopon* of the *Taurican Chersonesus.* (See again No. XII. letter I.)

In the same geography of Ptolemy, Kafa may be recognised in his *Theodosia;* Kerch, in *Panti-*

[1] The reader is referred to the Map, No. XII. letter I., for Ptolemy's southern coast of the Krimea. Also to the same map for the explanation of the Periplus. The particulars of the Krimea will best be understood by a reference to No. I. of the comparative geography.

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capæum; *Symbolorum Portus*, in Balaklava[1]; but the *name* of the latter is falsely placed at *Chersonesus*, on the opposite side of *Parthenium*, and instead of it *Ctena*, or *Stena*, which ought rather to belong to a place near the *Parthenium* promontory.

The Periplus of Arrian, as well as the anonymous one, has a chain of distances round the southern coast of the Krimea, but which appears to be corrupted at a most important point. Strabo and Pliny also furnish each a line of distance, but as these do not uniformly pass through the same points, the intervals can only in a few instances be compared. From these documents, however, the accompanying table has been formed, in which the ancient and the modern stages are set opposite to each other.

[1] M. Delisle, in his modern geography, names Balaklava, *Iämbol*. Is this the remains of *Symbolon*, or of the *Euboli* of the anonymous Periplus?

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Ancient Names.	Perip. of Arrian.	Anon. Perip.	Pliny.	Strabo.	Modern Names.	Geog. Miles.	Prop. Stades.	
Panticapæum to *Cazeka*	420	430	—	—	*Kerch to Cachuke* .	$37\frac{3}{4}$	—	
Theodosia . . .	280	280	—	—	*Caffa*	$18\frac{1}{2}$	—	
	700	710	—	—		$56\frac{1}{4}$	—	
Theodosia to *Tauro-Scythia* . . .	200	200	122 M P.	1000 Stades.	Caffa to Sudak . .	25	296	640
Lampada, Lampas, or *Halmitis* . .	600	600	976 Stades.		Lambat	29	344	982
Criu Metopon . .	—	220			Kirkinness . . .	17	200	342
					Merdvinnoi . . .	12	142	
Symbolon . . .	520	300	43 M.P.		Balaklava . . .	10	118	338
Chersonesus . .	180	180	344 Stades.		Sebastopol and Kerson village	$18\frac{1}{2}$	220	
	1500	1500	1320		Rate 710 to a degree.	$111\frac{1}{2}$	1320	

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With the modern stations are given the distances in geographical miles, measured on the Russian chart and map, with the number of *proportional* stades, answering to each; the proportional scale being adopted from the aggregate number given by Pliny, between *Theodosia* and *Chersonesus* (Kaffa and Sebastopol).

Pliny's report is adopted, because it is the only one that has the appearance of being reasonable. The Periplus can be proved to err in excess, and Strabo evidently falls short.

The two first articles of the Table are not applied to the present case. First, Pliny's line only commences at *Theodosia;* in the next place, there can be no question concerning the identity of the *Cazeka* of the Periplus with Cachuke, a well known place; the distance, moreover, of $37\frac{3}{4}$ G. miles, agreeing with 420 stades. And lastly, that *Theodosia* is the same with Kaffa; although the $18\frac{1}{2}$ G. miles from Cachuke do not accord with the 280 stades of the Periplus, the number of stades being doubtless greatly overrated.

It appears, by the Table, that by the Russian chart, the distance being measured along shore, as an ancient ship would have sailed, is $111\frac{1}{2}$ G. miles from Kaffa to Sebastopol, (or from *Theodosia* to the ancient *Chersonesus Taurica.)* As also that Pliny allows, during the same space, 165 MP., equal to 1320 stades, which gives a rate of 710 to a degree, whilst 717 arose on the last line of 2790 stades, between *Dioscurias* and *Panticapæum.*

It is unfortunate that Pliny should have mentioned

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no other intermediate place than *Criu Metopon*, through the course of this long line. The two Periplus have several; as *Tauro Scythia, Lampada*, or *Halmitis*, and *Symbolon*. Strabo mentions, besides, the promontory of *Parthenium* and *Ctenus* (or *Stena*). It becomes necessary to fix *all* of these places, since they have all a dependence on each other. We begin with the promontory of *Parthenium* and port of *Chersonesus*, in order to fix the *western* term of our line of distance, of which *Theodosia* is already fixed as the *eastern* term.

It has been shewn that Ptolemy's ideas were clearly these; that Cape Kerson was the *Parthenium* promontory, and Kaffa, *Theodosia*, and that it may be fairly assumed that he places *Symbolon* at Balaklava, though under the name of *Stena*, which belonged to a place between the *Parthenium* promontory and *Chersonesus*.

Strabo's description of this coast, p. 308, 9, is very clear and pointed, respecting the *Parthenium* promontory and *Chersonesus*. He describes a *smaller* peninsula, WITHIN the *larger* one of *Taurica*, in which were situated three ports; namely, *Chersonesus* (a city and colony of *Heraclea* of *Pontus*), *Symboli*, and *Ctenus (Stena)*. The extremity of this peninsula, says he, forms a promontory, at the distance of 100 stades from *Chersonesus*, and is named *Parthenium*. And again, *Ctenus* lies midway between *Chersonesus* and *Symboli*. This description suits exactly the peninsula which contains Sebastopolis, and of which the western extremity, now named Cape Kerson, answers to *Par-*

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thenium. The name of *Cherson* still subsists, in a village, at the opening of the inlet of Sebastopolis (in the Russian map of 1722, and another); that is, precisely where we should look for the ancient *Chersonesus.*

Symboli will also answer to Balaklava, situated on the south, or opposite side of the isthmus, to the village of Cherson, and not differing widely from the distance given from it; that is, 180 stades; for, by the Russian map, it is 18½ G. miles, by the way that a vessel must sail from one to the other, that is, about 220 stades of the proportion given by Pliny[1].

Strabo, moreover, fixes the position of this peninsula by another circumstance. He says, that from *Symboli* to *Theodosia* is about 1000 stades, *along a rough and mountainous coast, and in a NE. direction.* A glance at the map of the Krimea will shew that the mountainous coast of that peninsula actually commences at Balaklava, in coming from the westward, and continues to the NE. all the way to Kaffa; so that there can be no difficulty in referring *Symboli* to Balaklava.

Thus Strabo and Ptolemy, the only two authorities for the description of this coast, are agreed in placing the *Parthenium* promontory at Cape Kerson; from whence *Chersonesus*, at 100 stadia distant, agrees to Sebastopol, and the village of Kerson; and *Symbolon* to Balaklava. Moreover, the two Periplus allow 180 stades between *Chersonesus* and *Symbolon;* whilst the Russian maps have 18½ G.

[1] See the Table, p. 336.

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miles, equal to 220 stades, between Sebastopol and Balaklava; and although the excess be somewhat above 3 miles, yet it does not destroy the argument, where the distances were all by estimation; and what is of greater weight, there is no port or place of shelter save Balaklava, between Cape Kerson and Partenak, a distance of more than 40 miles.

Having thus fixed, we trust satisfactorily, the two extremities of Pliny's line of distance, it will be proper to examine the numbers in the Periplus, and in what manner they differ from the other authorities.

In the foregoing Table, it will be seen that the two Periplus agree in allowing 1500 stades between *Theodosia* and *Chersonesus*, whilst Pliny has only 165 MP., answering to 1320 stades. Also, that Strabo's account of 1000 stades, from *Theodosia* to *Symbolon*, falls very short of all the other reports. In effect, that there is a difference of 180 stades, the Periplus allowing so much more than Pliny; at the same time that Pliny's report agrees with the actual geography. (See p. 337.)

Lambat, a small but well known port or harbour, on the eastern side of the Krimea, occurs in the map of *Dezauche* (1788), but is omitted both in the sea and land maps of the Russians; which appears the more extraordinary, as Professor Pallas had a belief that it was the *Lampas* of the Periplus.

It is to be remarked that there are two places of the name of Lambat, *Bujuk* and *Kutchuk* (the Greater and Lesser); but they are very near to each other. The Lesser is the one intended here, and is the southernmost of the two. The worthy friend of

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the author, Mr. Charles Vaughan, has obligingly communicated some useful observations on this part of the coast, from an ingenious correspondent of his on the spot. He speaks of Lambat as follows:—

"Kutchuk Lambat is a good harbour for small craft, and much frequented. The promontory which forms it is nameless in the Russian charts. It is high and steep, and lies at four hours' riding south of Alushta[1]. It was believed by Professor Pallas and General Bardakof to be *Lampas* or *Halmitis* [of the Periplus]. On the other side of the bay, under the promontory of Aïudak, is another small harbour, called Partenak[2]."

Partenak and the promontory of Aïudak being found, the one in the Russian land map, the other in the sea chart, serve to mark, decidedly, the position of Lambat; as the bay itself is also described.

[1] The distance is no more than five to six G. miles, on the map of Dezauche; so that the excessive roughness of the country reduces the direct distance to a mile and a half per hour. See the note that follows, on Cape Merdvinnoi.

[2] The anonymous Periplus, after mentioning *Lampas*, says "*Illic est statio navium*," by which a road, or bay, or perhaps a creek, may be understood, in contradistinction to *portus*, a haven, or sheltered place. Arrian uses the two names of *Lampas* and *Halmitis*, as if they belonged to the same place, and the anonymous Periplus uses Lampas alone. Or it is possible that *Lampas* may intend Lambat, and *Halmitis*, Partenak. (These places, however, are so near each other, that it makes scarcely any difference, in respect of the general result.)

Mr. Falconer remarks, that the *Halmitis Taurica* probably took its name from its being a place of trade for *salt fish*, (p. 112, on the Commerce of the Euxine.)

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But it appears that the land map has placed Partenak where Lambat ought to have been; since the just mentioned traveller says that Partenak lies *under the promontory of Aïudak;* that is, at the *south* side of a bay, of about three miles in extent, that has Lambat at the north side. Dezauche also places Lambat at the north side of the bay of Partenak.

Kutchuk Lambat will then stand, on our construction, 54 G. miles, equal to 639, say 640 stades, of 710 to a degree, from Kaffa, or *Theodosia.*

The *Lampas* of the Periplus is given at 800 stades from *Theodosia;* so that there appears to be an excess of 160 at least, in this article. But if we take the interval between *Lampas* and *Chersonesus,* in the Periplus, there are 700 stades; whilst the distance given by the Russians, 57½ G. miles, is equal to about 680 stades of 710 to a degree, the difference will be less than two miles. Or, if taken to *Symbolon* (Balaklava), 520 stades in the Periplus, the difference will be about 5 miles. (See the Table.) So that the error clearly lies in the excess of the numbers between *Theodosia* and *Lampas.*

If, then, this correction be admitted, the numbers will stand thus; between *Theodosia* and *Chersonesus* (Kaffa and Sebastopol):

Pliny	1320 stadia.
Arrian, and	1340
Anon. (deducting 160)	

Mr. Vaughan's correspondent supplies us with a fact that indubitably confines *Lampas* far within

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800 stades from Kaffa. For having himself traced on shore the southern coast of the Krimea, he says there is no creek, or place of shelter, between Partenak and Balaklava. Now 800 stades from Kafa would fall about Cape Antader, which is 13½ G. miles, equal to 160 stades, to the westward of Lambat, and full 120 to the west of Partenak, the last shelter, in going westward, till we come to Balaklava.

Criu Metopon.

The next point of consideration is CRIU METOPON, the famous cape named, we conclude, from its resemblance to the forehead of a ram, *in profile*[1], and which formed the southern extremity of the peninsula of the Krimea.

Arrian's distances go directly from *Lampada* to *Symbolon*, in one line of 520 stadia, without noticing the above cape, which lay between them. But the anonymous Periplus mentions it, making two stages of the 520; that is, 220 to the cape, 300 thence to *Symbolon*.

According to the Russian chart, Cape Kirkinness is 17 G. miles from Lambat, or about 200 stades,

[1] One naturally concludes that the *form* which suggested to the Greeks (and that in more instances than one) the name of *Ram's Forehead*, must have been the profile of a *lofty* and very steep promontory, resembling the profile of the face of a ram.

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and which is the part that answers best to the Periplus, as the *Criu Metopon.*

Pliny's *Criu Metopon* is 976 stades from *Theodosia*; 344 short of *Chersonesus.* And as Cape Merdvinnoi, or Karadgy Boroun [1], is in the Table 28½ G. miles, answering to 338 stades from Sebastopol, this agrees perfectly with Pliny's *Criu Metopon,* situated 12 miles, or about 142 stades, to the west of Kirkinness. So that the only two authorities that are found for the position of this cape differ 142 stades.

Independent of the circumstance of distance, we should have fixed on Merdvinnoi for *Criu Metopon,* in preference to any other part of the coast. For, first, it is the most southerly point of the peninsula, and forms the most *decided projection* of any part of the southern coast. 2d. It is the point at which the lofty part of the mountainous border advances with a perpendicular front, to the sea-coast. And 3d. It is from position more nearly opposed to *Carambis* than any other [2].

Mr. Vaughan's correspondent has some other remarks, which appear too curious to be omitted,

[1] The first is the Russian; the second, the Turkish name.

[2] Mr. Vaughan's correspondent speaks thus of the mountains, at and near Cape Merdvinnoi.

"The mountains between Kutchuk (not Cachuke) and Laspi, which latter is situated at the west side of the Merdvinnoi, present a prodigious front of rock, bare and very lofty, and which, if the situation be preferred for *Criu Metopon*, may be, perhaps, the bold forehead of the ram. They are almost impassable, even with Tartar ponies, except by making very extensive circuits."

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when they relate to a coast so little known in Western Europe.

"Sudak is, perhaps, the nameless port of the *Tauro Scythæ,* mentioned by Arrian. The high impregnable rock, on which the castle stands, and the beautiful spring at the foot of it, must have made it an eligible station.

"The promontory of Aïudak is the most remarkable in form, and conspicuous in situation, of any on this coast. This promontory projects in the form of a peninsula; it has a lofty termination, and a deep gap through the isthmus; so that, in profile, it takes the form of the head of a battering ram. The Tartar guides called this *Castel.*" (In Ptolemy, we find *Charax,* with *Criu Metopon* to the SW. of it.)

"The mountains above Cape Antader are very majestic, but I think the cape not so prominent as in the Russian sea chart." (In the land map, it is *much less so.)*

"Nikita Boroun is lofty, but not so steep as Aïudak.

"Aya Boroun appeared much less conspicuous than the rocks about Laspi."

It might not have been expected that M. D'Anville, possessed only of such materials as he was, would have decided as he did, respecting the ancient positions around the Krimea, on the south and west. First he places the *Parthenium* promontory at Kokino, or the southern point of the gulf of Perekop. *Symbolon* he places at Koslov, and *Chersone-*

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sus between the two; *Eupatoria* WITHIN the gulf of Perekop, or *Carcinitis*. And what is, perhaps, more extraordinary, *Lampada*, or *Halmitis*, at Balaklava, on the *west* of *Criu Metopon*.

It would appear that he applied what Strabo says (p. 308), concerning the *lesser* peninsula, to *Taurica* at large, and that he slighted the fact of *Symbolon* being at the commencement of the mountainous coast, to the NE.

Perhaps the source of his error lay in the supposition, that by *Cercinetis*, *Carcine* or *Carcinitis* was intended; and that *one* of the *two* lines of distance, between *Chersonesus* and *Calus*, was an interpolation. This may be suspected, from the shortness of the distance allowed by him between *Chersonesus* and *Calus*. In effect, M. D'Anville appears to have failed, in his Ancient Geography of the Krimea, in a remarkable degree.

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CHAPTER VI.

From the Chersonesus Taurica to the mouth of the Borysthenes river, including the western side of the Krimea, the Gulf of Perekop, &c.

From *Chersonesus,* the next stage, in Arrian's and the other Periplus, is *Cercinetis* [1], or *Coronitis,* 600 stadia. From thence to *Calus Portus,* 700, in both. And lastly, from *Calus* to the *Borysthenes,* 1130 in Arrian; 1190 in the other: giving a total of 2430, in the one case; 2490 in the other.

From a general view of the actual geography, founded on the new Russian maps, it appears that *Cercinetis,* or *Coronitis,* may be referred to the promontory which forms the NW. extremity of the Krimea; and the *Calus Portus,* either to the port of *Carcine,* which is adjacent to the west side of the isthmus of Perekop, or to the next port to it, westward, distant 6 miles.

Cercinetis has no description, in either Periplus

[1] *Cercinetis,* in Arrian; *Coronitis,* in Anonymous.

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or elsewhere. But the NW. promontory in question is still named by the Greeks, *Kokino*. It obviously lies in the direct route from the southern quarter of the Krimea to the *Calus Portus*, and is not so far beyond the distance given as to destroy the probability of its being the place intended. Such a promontory, moreover, could not well have been disregarded, in a Periplus; and it is possible that the name *Coronitis* may have been corrupted into Kokino. There are the remains of a light-house, or *Fanal*, on it, as if the promontory had been a point of importance, as no doubt it was, and still is, in the navigation.

It might have been difficult to determine which of the two places before-mentioned was intended for the *Calus Portus*, had not Ptolemy pointed out the most westerly of the two, and which is 6 miles to the westward of the Isthmus of Perekop, and is readily found in the Russian surveys. Its form, capacity, and depth of water, for small vessels, certainly entitles it to the name of the *fine port*, for vessels of that description, in the present day; and if we can suppose that it is the place really intended by the Periplus, the difference in the distance ought to be disregarded, as will now appear [1].

We come now to the statement of the distance, on the actual geography, on the whole line between *Chersonesus* and the *Borysthenes*, on a supposition

[1] This harbour is named Koraly, in the Russian maps.

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that the points of *Cercinetis* and *Calus* are not misapprehended [1].

It appears, by the accompanying Table, that Arrian allows 2430 stades on the 210 G. miles of distance between *Chersonesus* and the *Borysthenes.* These give a ratio of 694 to a degree, whilst the 2490 of the anonymous Periplus give somewhat more than 710; and, between *Calus* and the *Borysthenes,* the ground most favourable for making a comparison on, the result is 706 in Arrian; 745 in the anonymous.

It must, however, be observed, that owing to the want of certainty in the courses of some of the lines of distance, together with an apparent deficiency between *Chersonesus* and *Calus,* the calculation of

[1] Ancient Names.	Stades, at 694 to a degree.		Modern Names.	G. Miles.	Propor. Stades, on 710 to a degree.	
Chersonesus to Cercinetis	600	1300	Sebastopol to Kokino prom.	60	710	1349
Calus Portus	700		Koraly . .	54	639	
Tamyraca .	300					
Mouth of the Lake . .	300	1130	No particulars within this space . .	96	1136	1136
Eonœ . .	380					
Borysthenes *	150					
	2430			210		2485
Add the difference to Calus . .	49					
	2479					

* The Borysthenes simply is mentioned in the Periplus. As it is a river of more than two miles in breadth at the entrance, one must conclude that the point reckoned to was the *nearest* part, and not the *middle* of the river.

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the stade, on the whole ground, between *Panticapæum* and the *Borysthenes*, was laid out of the question, in the consideration of the general scale, along the north side of the Euxine.

It appears also, by the same Table, that the distance between *Chersonesus* and *Cercinetis* is given at 600 stadia, and thence to *Calus* at 700, whilst the *actual* distance on the first interval, being 60 G. miles, exceeds the Periplus by about 110 stades; but that *Calus* appears to be only 54 G. miles from *Cercinetis*; thereby falling short by about 61 stades. If the two lines are thrown together, they may be reckoned equal to 1349 stades, which number exceeds that of the Periplus by 49 only, or little more than 4 G. miles. Of course, it may be suspected, that the two lines have been interchanged; that the 700 belong to the first interval, and the 600 to the second.

With respect to the remainder of the *line* between *Calus* and the *Borysthenes*, a reference to the map will shew that the route given by Arrian must have led *within* the sand-bank, called the *Dromos Achillis*, or, at least, the western part of it. One may conceive that the lake of *Tamyraca* was formed by a part of the *Dromos Achillis*, and that the navigation, described in the Periplus, lay through the lake. But this is of course a matter of uncertainty; a lapse of seventeen centuries or more may have produced so many and great changes, by filling up lakes, and adding to the prominences of the coast, that it would be vain to attempt to compare the ancient and modern positions, or even to reason on the

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supposed differences. The main point, that of ascertaining the general course of the line of distance, seems to be attained.

The Periplus mentions a *desert* [and *nameless*] island, at 60 stadia *beyond* the entrance of the *Borysthenes*, and which appears to be the same still existing under the name of *Beresan*, very close to the shore, and at 40 stadia from the eastern point, or Kinburn.

As the island does not appear to be of an alluvial nature, but permanent, it may be regarded as the same; and, in that case, affords a useful point to calculate from, in preference to the mouth of a large rapid river, subject to changes. Accordingly, the trace of the distance along the shore, from *Calus*, being $99\frac{1}{2}$ G. miles to the island, let 5 G. miles for the 60 stades be taken out, the remainder of the space, $94\frac{1}{2}$, should be that given by Arrian, for the 1130 stades, between *Calus* and the entrance of the river; and this number of stades on the scale, taken for the last division, 710 to a degree, give $95\frac{1}{3}$ G. miles. Thus the general question is decided, and also that respecting the identity of *Calus*; for *Carcine* is too far removed from the Borysthenes and its island. To which may be added, that the whole line, from the southern part of the Krimea to *Calus*, has been found susceptible of explanation, which it must be allowed to have stood much in need of, when the *Parthenium* promontory was placed at Kokino.

It may be proper to mention, in this place, the remarkable sand-bank, named at present Tentra, or

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Tendra, and anciently the *Dromos Achillis* [1], and which Arrian appears not to have known, or so generally, as to confound it with the *island* of Achilles, at the mouth of the Danube. Yet it was well known before his time, as appears by the descriptions of it, left us by Strabo and by Pliny.

Pliny (lib. iv. c. 12.) says, that it was in the form of a *sword*, 80 Roman miles in length: Strabo (307, 308.) that it was 1000 stadia long, but only *two* in breadth, and that it extended from west to east. Its form in Ptolemy is much the same as one would have collected from those descriptions. It is at present about 70 G. miles in length (89 Roman miles); but Strabo's measure exceeds, by about 150 stades. It is described in the Russian charts as *exceedingly* narrow, but no report of the measure has reached us. It extends nearly in a straight line, and generally parallel to the coast, between the gulf of Perekop *(Carcinitis Sinus)*, and the mouth of the *Borysthenes*. In the middle part it is connected with the main land, but its history seems to prove that it was originally an insulated sand-bank, and it is still so much like those found in the lower parts of the estuaries of great rivers, that one cannot but refer its origin to the presence of a great river.

[1] Our taste must certainly differ very much from that of the ancients. Here we find two places, in the Black Sea, named in honour of Achilles. With us, Achilles is only tolerated as being the hero of the first of poems, and therefore necessary to it. But who could admire him? We all agree with Arrian, that he was a *hero*, but is a hero to be divested of all the amiable qualities belonging to human nature?

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In effect, it seems to have been formed by the Borysthenes, whilst it flowed in at the north of the Krimea, which Pliny tells us (lib. iv. 12.) had been an island, and which appearances warrant us to believe. For as the gulf of Perekop must have been its grand estuary, its waters, augmented by the outlet of the *Mæotis*, might well have formed such a bank, but which might have been concealed until the surface of the Euxine was lowered by the breaking out of the Bosphorus. Under this idea, the *northern* shore must have been originally some miles farther to the north than we now see it; and when the river changed its course, the northern channel filled up gradually, until the shore became united, in certain parts, with the sand-bank.

What adds to the probability of the last supposition is, that, in the anonymous Periplus, mention is made of an isthmus of 40 stadia in breadth, which appears to connect the sand-bank with the shore. Now, at present, they are connected, through the space of 150 stadia, which can only be accounted for by the filling up of the channel. Such are the opposite effects of currents and still water, and such are the changes gradually operating on shores that are visited, and occasionally deserted, by capital rivers!

The ancients appear to have known the nature of that singular and extensive chain of muddy lakes, that border on the N. and NE. of the Krimea, and which are described in different languages, by names that indicate *putrid mud* or *foul stagnant waters*, &c. These may be conceived to owe their formation to the mud of the *Borysthenes* and *Tanais*,

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but chiefly of the latter, and to have been formed posterior to the subsidence of the surface of the Euxine, and to the junction of the Krimea with the main land.

Olbia is said by Arrian to be situated on the Borysthenes, but the anonymous Periplus gives the position with more precision; that is, at or near the conflux of the *Hypanis* (Bog). Mr. Falconer (page 82) says, that it seems to have been nearly where Otchakof now stands. But even Arrian seems to place it at some distance up the river.

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CHAPTER VII.

From the mouth of the Borysthenes to Tomis, Tomiswaer, or Baba; including the mouths of the Danube.

Tomis is preferred, as the term of the present Section, to the mouths of the Danube; not only because they may probably have varied their positions, in some degree, but because it may possibly be objected, that the *Psilon* mouth of that river may not be recognised in modern geography. Had the Island of Achilles been a fixed point in the Periplus, *that* would have been the best term; but as it is only said to lie *opposite* to the *Psilon* mouth, its distance from it (22 or 23 G. miles) is such, as that a small degree of obliquity would considerably affect the distance from the Borysthenes.

As *Tomis* is here chosen as the term of the line of distance, and, therefore, to be understood as being well ascertained in position; the reader may naturally expect to be informed, at the outset, how far it is identified with any modern known position. It may be answered, that Baba, called by the Greeks *Tomis-*

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waer, (or the city of *Tomis*[1]), by the suite of positions derived from the several authorities of the Periplus, the Antonine Itinerary, and the Theodosian Tables. In particular, in respect of *Callatis*, which cannot but be regarded as the present Kallat, *Tomis* was 300 stadia from it, according to Arrian; in the Antonine Itinerary it is 30 MP.; and in the Tables, 34; the mean of all which may be taken at $23\frac{1}{4}$ G. miles; and on the construction the distance between Baba and Kallat is 25.

To this may be added, that Ptolemy places *Tomi*, or *Tomis*, exactly opposite to *Axiopolis*, on the Danube, as Baba stands in respect of Axiopolis, (called also Rassovat); and likewise as they really stand, respectively, at, or very near to, the narrowest part of the land between the Danube and the sea.

In effect, there appears to be as little doubt concerning the identity of *Tomis*, with Baba, as of any one position marked by the Periplus.

It has been stated in the last section, (page 351), that the island of Beresan serves as a point of correction to the place of the mouth of the Borysthenes; and that, although given at 60 stadia from the entrance of the river, it is now no more than 40 from the eastern point; (that being understood by the phrase "to the *Borysthenes*.") This change

[1] The modern Greeks have generally preserved the ancient names of places.

The latter part of the name of Tomis-*waer* is said to mean *city;* and the same in War-sovie, Peter-waradin, Warna or Varna, Temis-waer, &c. &c.

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is probably owing to the progress, westward, of the alluvial point of Kinburn. So that either the point of the Borysthenes ought to be *set back*, in idea, 20 or more stades, or the island itself ought to be taken as the point of departure.

Between the Borysthenes and Tomis, Arrian reckons 2720 stades; or from the island (Beresan), 2660; and the distance measured on the construction, formed on the ground-work of the new Russian map, is 213; giving a rate of 749 to a degree on the grand total [1].

This is a proportion very different from any other that has appeared in the course of this enquiry; and it seems as if the number of stades was much overrated. But it is certain that the other authorities bear Arrian out, (Strabo excepted). For the anonymous Periplus has 1680, for Arrian's 1640, from the Borys-

[1] Ancient Names.	Stades in Perip.	Modern Names.	Geog. Miles.	Prop. Stades.
Island, 60 stades from the entrance of the Borysthenes to *Odessus* (or Ordesus) . . .	80	Beresan Island to Teligeul .	11	137
Port of the *Istrians* . . .	250	Odessa, Russian port . . .	20	250
Port of the *Isiaci*	50			
	380		31	387
To the *Psilon* mouth of the Danube . .	1200	To the Sulina mouth . . .	95	1186
	1200		95	1186
Total to the Danube	1580	(Rate 753 to 1°.)	126	1573

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thenes; and Pliny, 1720. Strabo has only 1200; but it is probable, that, as he agrees so nearly elsewhere in this line, the 1200 were meant for the distance between *Isiacorum* and the *Psilon* mouth, as the others give it.

We can, therefore, only take the numbers as we find them, and make use of them accordingly. At the same time it must be suspected that they are too large, not only between *Isiacorum* and the Danube; but also between the Danube and Tomis.

If the 2660 stades of the Table be proportioned to the space between the Island of Beresan and

[*Table continued.*]

Ancient Names.	Stades. in Perip.	Modern Names.	Geog. Miles.	Prop. Stades.
Brought forward,	1580		126	1573
From the *Psilon* to the second mouth (or *Boreum*) . .	60	Ghedrille, or Georgivik .	$16\frac{1}{2}$	206
Calon or *Pulchrum*	40			
Naracum . . .	60			
Fifth mouth, *Sacrum*, or *Peuce* .	120	Outfall of the Lake Raselm .	$8\frac{1}{2}$	106
	*280		25	312
To *Istropolis* .	500	Kargolik . .	35	438
Tomis . .	†300	Tomiswaer or Baba	27	337
	800		62	775
From the *Psilon* mouth to Tomis	1080	(Rate 745 to 1°.)		
Grand Total .	2660	(Rate 749 to 1°.)	213	2660

* Strabo has 300.

† And 250.

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Tomis-waer, it will be found that 1580 of these laid off from Beresan, and 1080 from Tomis, will meet at a point within one mile of the Sulina mouth of the Danube; and as these are the given distances of the *Psilon* mouth, in the Periplus, from Beresan, (the *nameless* island), and from *Tomis;* the result must be allowed to point very clearly to the present Sulina mouth, as the one representing the ancient *Psilon.* Not that such a process alone, where the lines of distance are so long, would satisfy the mind respecting the position of the *Psilon,* and identify it with the Sulina; but it is a fact, proper to be treasured up, until we arrive at the point itself in the course of the enquiry.

It will be convenient to divide the space itself betweeen the *Borysthenes* and *Tomis* into four separate heads:—

1. From the Borysthenes to the port of the *Isiaci;* taken for the present Russian port and emporium of Odessa.

2. From Odessa to the *Psilon* mouth of the Danube.

3. The mouths of the Danube, collectively. And

4. From the *Sacrum,* or southern mouth, to *Tomis.*

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SECTION I.

From the Borysthenes (or Island of Beresan) to the Port of the Isiaci.

It has been stated above, that Arrian allows 1580 stadia between the island near the mouth of the Borysthenes and the *Psilon* mouth of the Danube; and that the distance on the construction is 126 G. miles; and also, that the rate arising on the whole distance to Tomis was 749 to a degree.

Of the above distance of 1580, 380 are reckoned between the island (Beresan), and the Port of the *Isiaci;* and on the construction we have 31 G. miles from the island to Odessa; equal to 387 stades of the mean scale of 749.

The probability that Odessa is the port of the *Isiaci,* rests not on the *detail,* but on the *aggregate* distance; the detail appearing to be erroneous. For from the island (Beresan), Arrian allows 80 stadia to the port of *Odessus;* but the first port or inlet, from the island, is at 11 G. miles, or about 130 stades from it. That port is Teligeul, a capacious estuary, which receives a river of the same name. And *Odessus* is said by Arrian to be a port for ships.

This should be the Ordessus of Ptolemy, at the river *Axiaces;* and it may be, that *Ordessus* is the proper reading (as Arrian himself places *Odessus* at Varna); and as Pliny also speaks of *Ordessus;*

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although he places the *Axiacæ* on a river near the *Tyras.*

From *Odessus* (or *Ordessus)* Arrian allows 250 stadia to the Port of the *Istrians ;* and thence, 50 to that of the *Isiaci ;* or 300 from *Odessus ;* (380 from Beresan).

As the interval in Arrian, between the *island* and *Odessus,* is too small, so the next is too large ; but the errors balancing one another, the aggregate agrees within three-quarters of a mile, to Odessa, (the modern emporium of the Russians in the Euxine), as the port of the *Isiaci.* The port of the *Istrians,* 50 stadia short of it, may have lain in the northern part of the bay of Odessa. And, indeed, there is no other part of the coast in this quarter, where two ports are to be found within four or five miles of each other.

SECTION II.

From the Isiaci or Odessa to the Psilon mouth of the Danube.

Arrian gives between the port of the *Isiaci* and the *Psilon* mouth, 1200 stades ; and it has been shewn, page 359, that the *proportional* distances, laid off both ways, from the Borysthenes, and from *Tomis,* agreed in placing the *Psilon* mouth where the Sulina now is. Much other matter will be adduced,

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to shew the probability of it, under the next head of the mouths of the Danube.

Arrian says of the intermediate coast, between the *Isiaci* and the Danube, that it is *deserted,* and the places *nameless.*

Yet the contrary is well known. The city of *Ophiusa* or *Tyras* (now Ovidipol) stood at the mouth of the *Tyras;* the anonymous Periplus gives a number of places and rivers. So does Pliny.

If the port of *Iäco* [1], in the anonymous Periplus, is to be taken for that of the *Isiaci,* which appears probable, he agrees with Arrian in allowing 1200 stades to the *Psilon* mouth. He, moreover, particularises *Niconia,* at 300 from Iäco; and thence to the *Tyras* river, 30. Then *Neoptolemi,* 120; *Cremniscus,* 120; *Antiphili,* 330; and, finally, the *Psilon* mouth, 300.

The opening of the gulf of Akkerman, into which the *Tyras* falls, is 29 G. miles from Odessa, which is equal to about 360 stades, at 749 to a degree; and 330 are given above; so that *Niconia* should be placed near the entrance of Akkerman. And, by a like proportion, *Cremniscus* should stand near the entrance of the Burnasola lake: with *Neoptolemi* half way between it and Akkerman gulf. And, finally, *Antiphili,* at the entrance of the Jasik lake.

It may be remarked that, as the *Tyras* is given in the anonymous Periplus at 330 stadia from Iäco, which is within $2\frac{1}{2}$ miles of the distance to Odessa, on

[1] Iäco is said to be 480 from the Borysthenes; 90 from the Istrian port.

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the construction, it may well be concluded that the port of the *Isiaci* and that of Iäco were the same; and that Odessa is rightly placed.

SECTION III.

The Mouths of the Danube.

It is proper that, besides the mere circumstance of agreement of the proportional distance, others also should be adduced, in proof of the identity of the Sulina mouth with the *Psilon;* especially as the author differs from some highly respectable authorities.

However, the task of reconciling the order and position of the several mouths of the Danube, as given by different ancient authors, and the referring them to modern geography is an intricate and tedious one, as it concerns the reader; but is absolutely necessary to a right understanding of the subject; since the ancients, amongst themselves, in certain instances, gave different names to the same mouths, as well as different numbers of mouths. And yet, the authors quoted all lived within a century and a half of each other.

A Table is subjoined, in which the different mouths, as given by the ancient authors, and by the moderns, are placed opposite to each other, and which will

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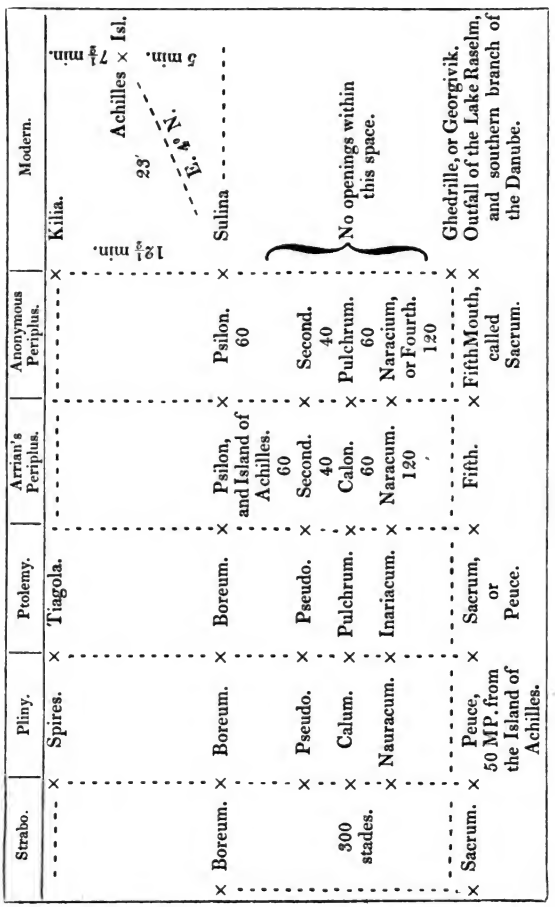
greatly facilitate the knowledge of the subject. It will there be seen, that both Pliny and Ptolemy



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specify six mouths, but Arrian and the anonymous Periplus five only; whilst Strabo only mentions the two extreme ones: and finally, that in the present times there are no more than *four* openings.

The principal use, however, of this Table is, by bringing into one point of view the ideas of the different authors, to endeavour to fix the two extreme mouths given by Arrian, the anonymous Periplus, and Strabo: and having shewn that they all three meant the same individual ones, though under different names, to identify them with the modern Sulina, and the *outfall* of the Raselm [1] Lake, which receives the southernmost branch of the Danube.

It appears reasonable to believe, that the *Boreum* of Strabo, Pliny, and Ptolemy, is the *Psilon* of Arrian and Anon., because the *Boreum* of Strabo stands in the same relation to the *Sacrum* as the *Psilon* of the anonymous does; the difference in the distance being only 20 stadia on 280. The Anon. also, which, in point of names and distances, runs exactly parallel to Arrian, informs us that the fifth mouth is called *Sacrum;* whence we learn that the fifth mouth of Arrian is also the same with the *Sacrum:* and Ptolemy having informed us that the *Sacrum* is the same with the *Peuce*, the *Peuce* of Pliny also is shewn to be the *Sacrum*. So that the *Sacrum*, *Peuce*, and *fifth* mouth all intend the same; that is, the southernmost mouth of the Danube. It may also be added, that Strabo and the anonymous Periplus allow 500 stades between the

[1] The *Halmyris* Lake of Strabo and Pliny.

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Sacrum Ostium, and *Istropolis*; the same as Arrian does between his *fifth* mouth and *Istropolis*.

We trust that the reader will be satisfied that the ancients universally intended by the *Boreum* mouth the same with the *Psilon* [1]; and by the *Sacrum*, the same with the *Peuce* and *fifth* mouth. The positions of the intermediate ones are readily found in the Table.

The island of *Achilles* has been mentioned, in relation to the *Psilon* mouth of the Danube [2]. Arrian says that it lay *exactly opposite* to that opening: and this is very nearly the position of *Ilan Adassi*, or Serpent Island, in respect of the Sulina mouth. But it is by no means *directly* opposite, although much nearer so, to that, than to the Kilia mouth. In strictness, if a perpendicular was let fall from the

[1] Although the name *Psilon* may have been a descriptive one in the Greek, it may still have been nothing more than an imitation of, or approximation to, the *original* name. It may be supposed, that the ancient Greek mariners, as well as the modern British, often gave significant names to places when the sound approached that of the original names.

[2] This is, in fact, a *white* rock, of about 2 miles in length, and probably deriving its colour from the dung of the marine birds, that frequent it in prodigious numbers: the like of which is seen in many other parts of the world. It is 23 G. miles from the Sulina mouth ($26\frac{1}{2}$ British), and is a highly useful mark for ships that sail along a low coast, where the rivers have formed such extensive sand and mud banks in the sea.

Mr. Thomas Thornton saw it, in his way to and from Odessa, a few years ago. This is mentioned, because it is reported that a celebrated geographer, now living, doubts its existence.

Arrian says that it lies exactly in the track of ships that sail along shore.

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island, it would cut the *general line* of the opposite coast, at 5 G. miles to the northward of the Sulina mouth, 7½ to the southward of the Kilia. So that its obliquity to the line of the coast, at the mouth of the Sulina, is about 13 degrees; and its distance 23 G. miles, by the new Russian chart of the Black Sea, (1804). That distance must render it difficult to judge, by those who sail along such a very low coast, when they are *directly* opposite to any particular point of it: so that, whether the *Psilon* mouth might have been more to the north in ancient times, or the report may have arisen from a coarse estimation of the relative position of the island to the river's mouth, cannot be known. It is possible that the mariners of the present day may say the same of it, in respect of the Sulina, as Arrian does of the *Psilon.*

At all events, it is more nearly opposite to the Sulina than to the Kilia mouth; and in common language, may certainly be said to be *opposite* to the former.

Pliny says (lib. iv. c. 12.) that the *first* branch or mouth of the Danube, in coming from the side of Thrace, is the *Peuce,* by the island of the same name. That it forms, above *Istropolis,* a lake, 63 MP. in circuit, called *Halmyris;* and which may be taken for the lake named by the Russians Raselm, whose outfall is the present southern mouth of the Danube, and the acknowledged *Sacrum* mouth of Strabo, &c. And in chapter 13, he says, that the island of *Peuce* was 50 MP. from the island of *Achilles;* which island (that is, Serpent Island) is really 41 G. miles,

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equal to 51 MP. from the opening of the *Peuce* branch and lake taken for *Halmyris*.

Thus far we have an assurance of the truth of the relative positions of Raselm, or the *Sacrum* mouth, with the island of *Achilles*, according to Pliny. And we have an equal assurance of the relative position of the *Psilon* from the *Sacrum*, by Arrian and Strabo, who allow from 280 to 300 stadia for the intermediate distance. On our construction, that is, on the Russian map, we find 24 G. miles between the Raselm mouth and that of Sulina; and it will be found that this distance will produce 277 to 310 stades, according as we employ the longest or shortest scale of stades that has been employed in the course of this enquiry.

From all the circumstances, one would be induced to believe that the Sulina mouth occupies the place of the *Psilon*; or was indeed the same, allowing for the changes that are ever in progress at the mouths of great rivers [1].

[1] According to the idea of the author, the Sulina opening (whether the *Psilon* or otherwise) is somewhat *more* to the *south* now than it has been at some former time. It is well known that permanent sea currents affect the positions of river mouths, and point them obliquely into the direction of the current; no streams effecting their junction at *right angles*. The sea current runs to the south, along the western coast of the Euxine; and its effect on all the mouths of the Danube is visible. The Kilia mouth, as probably the most ancient, is affected in a greater degree than the rest. But in a course of time, the obliquities increasing, reduce the ground between them and the sea to a narrow slip, which the stream forces its way through, and they regain nearly their ancient position, provided the upper part of the course of the stream preserves its original direction.

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We come now to speak of the *Tiagola*, or northernmost mouth of Ptolemy; which appears to answer to the *Spires-ostium* of Pliny, and to the Kilia of our times.

Ptolemy, in effect, has two openings near each other, much in the manner in which the Kilia opens to the sea; and which Ptolemy's delineation very much resembles, on the whole. And these are situated to the north of the *Boreum*, as our Kilia to the north of the Sulina.

The *Tiagola* of Ptolemy passes through a lake of the same name, situated a good way within land, and occasions a suspicion that it may be a corrupt writing of *Kagul*, a lake now actually existing, and communicating with the channel of the Danube, above Isaksa. The whole character of the Kilia branch, below Ismael, is that of an ancient decayed channel of a river, which had run in that direction so long as to have raised the level of the soil too high for its current to overcome, at ordinary times. And as one must thence conclude it to be the *most ancient channel*, it may have been that by which the waters of Moldavia and Walakia discharged themselves, separately from the Danube, before that river quitted its bed at *Tomis* and *Istropolis*, to usurp that of the Pruth, Siret, Jalomnitza, &c., as it appears to have done. More will be said on this subject in the next article.

The modern intermediate branch, between the Raselm and the Sulina, is known by different names, as Georgivik, Ghedrille, &c. Its position is nearly that of the ancient *Naracum*.

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Of the ancient *Pseudo* of Pliny and Ptolemy, the *second* mouth of Arrian; as well as the *Calon*, or *Pulchrum*, (which one would conclude was the finest channel,) no traces of the *embouchures* are known to remain: although such openings shew themselves during a succession of ages in some countries, and their traces are seldom entirely obliterated. But it is curious enough, that there are three small lakes, very near the margin of the sea, which lie exactly in the lines of direction which the *Pseudo*, the *Calon*, and the *Naracum*, must have taken, admitting the Sulina to occupy the place of the *Psilon*.

SECTION IV.

From the Sacrum mouth of the Danube to Tomis, Baba, or Tomis-waer.

Next to the *Sacrum*, or *Peuce* mouth, is *Istropolis*, 500 stadia, according to Arrian, the other Periplus, and Strabo. And from thence to *Tomis*, 300 by both Periplus, 250 by Strabo. The circumstances connected with both these positions require much investigation, as involving much curious matter relating to antiquity; concerning *Tomis*, as it respects Ovid; and both places, as they respect Ovid and the change of course of the Danube.

It has appeared that Arrian allows 800 stades, Strabo 750, between *Sacrum* and *Tomis*. The

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construction has 35 from the southern mouth to Kargolik; 27 thence to *Tomis:* total 62 G. miles.

In the Antonine Itinerary the distance from *Istria* to *Tomis* is

36 Roman miles, equal to	25·7 Geog. [1]
40 (Theodosian Tables)	28·5
Mean	27·1

which accords with the construction: but the number of stades, 300, is too low for the mean scale of 749, on this line, but would suit the ordinary scales, in other parts of the Euxine. This serves to shew that the numbers within the interval under discussion were taken too high; as we have before remarked, in page 357.

The Antonine Itinerary and Tables have a continuation of the land route from *Istria*, or *Istropolis*, along the coast, to the nearest mouth, or next mouth of the Danube; and thence inland, coasting the right bank of that river, first to *Trosmis* (taken for Maksin), and thence to *Dorostorus* (now Drista, or Silistria,) in the road to *Pannonia* and *Italy*.

It will be proper to notice these routes as far as they are required to illustrate our proper subject.

In the Antonine Itinerary it is reckoned 51 MP. from *Istropolis* to *Valle Domitiana*, along the sea-coast; a position unknown, and from whence the

[1] These, being *land* routes, require the above deduction for inflexions, &c. The sea distances are supposed to be straight lines, drawn from one place to the other.

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road turns inland through *Noviodunum* [1] to *Trosmis* (no doubt Maksin); the distance 105 MP., equal to 75 G. miles. If we take the 87 MP. of the same Itinerary, (through *Istropolis)*; that is, the 36 from *Tomis* to *Istropolis*, and the 51 just mentioned, there is an aggregate of distance equal to 62 G. miles, between *Tomis* and *Valle Domitiana:* and it will be seen, in the note at p. 358, that this is just the distance on the construction between Tomiswaer and the southern mouth of the Danube, (the ancient *Sacrum.)* The distance inland, following the supposed track of the Roman road, is only 71 G. miles, or 4 less than the Itinerary gives; which, however, is not worth regarding here.

Now, without pretending to understand what place is intended by the *Valle Domitiana*, the position established by the distance from *Tomis*, is at the *Sacrum* mouth of the Danube; and which may have been intended, since the road skirts the Danube generally; and at 17 miles short of the sea, comes to a station named *Salmarudis*. One can hardly doubt, by the name, that this station is at the lake *Halmyris*, which is exactly in that situation; and a slight reference to the map (No. XII. letter H) will probably satisfy the reader that the road must have led to the northward of that lake; and thence to the *Sacrum* mouth, since the distance from *Tomis* so decidedly points to it.

[1] *Noviodunum* was about midway between Isaksa and Tulza, and was probably a post at the passage of the Danube, as Tulza now is.

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Valle Domitiana may possibly have been the most advanced military station on the sea-coast; as *Trosmis* was in the interior, at the angle of the Danube.

The Tables go over the same ground with the Itinerary, only that there is an extension of the line of distance along the coast, 13 MP. beyond the other; and in that from *Trosmis*, a variation of the line during the last 26 miles. The line terminates on the coast at *Stoma*, by which one would suppose to be meant the main stream or channel of the Danube; and the distance being precisely 100 MP., equal to 71½ G. miles, both from *Trosmis* and from *Tomis*, falls at the mouth of the *Naracum*, or fourth mouth of Arrian; where, at present, a large branch falls in, under the names of Ghedrille and Georgivik.

If the numbers are right, and it is a presumptive proof of it, that the distance from *Trosmis* to the sea agrees, both of these lines afford strong presumptive proofs of the truth of the construction of our geography, as well as of an excess of distance, not only in Arrian, but in all the others who have given the distance by sea.

Many have supposed that the facts of *Tomis* (the place of banishment of Ovid) being situated on the *Danube*, and also in *Scythia*, were mere fictions of the poet. Others have believed them, and looked for the place on the north of the Danube. A fair countrywoman has found the place at Ovidipol, more than 150 miles from *Tomis;* and even his *tomb*. She did not recollect that the name was nothing more than a corruption, or change, of *Ophiusa*, one

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of the names of *Tyras*, situated near the mouth of that river, now called the Dneister (or Daneister). As to the sepulchre, it might be that of any other Roman of distinction; the Romans possessing it, as belonging to *Dacia*[1].

But the fact unquestionably is, that a main branch of the Danube anciently ran by *Tomis*: as also, that the Roman province in which Tomis stood was named *Scythia*. At the same time it appears that the northern arm of the Danube discharged itself at *Istropolis*; which, indeed, had its name from the river.

The proofs of these changes rest as much on the traces they have left as on historical authority. No changes in nature have their traces more indelibly marked than those of capital rivers. History furnishes abundant proofs of such wanderings. The Nile, the subject of history from early times, has lost one of its principal branches, the bed of which is still to be traced. The Rhine, in the lower part of its course, has lost both its name and substance. The *Oxus* (or Jihon), which, no very long time ago, flowed into the Caspian Sea, is now received into the Aral Lake. The Euphrates and Tigris, which held separate courses in the time of Nearchus, now form one trunk stream. The Burrampooter, equal to the Ganges, joins the latter 90 G. miles lower down than

[1] It is not the least extraordinary part of this strange error, that Mrs. G. and others should have taken for granted that a banished individual communicated his name to a considerable city, subject to the emperor who banished him, for some real or supposed personal affront.

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in former times; and having previously thrown itself into the bed of another river. And, finally, the Yellow River of China, greater than any of the others, has frequently wandered.

With respect to the *Tomis* branch, we have the testimony of Ovid, and also that of the Theodosian Tables, which place *Tomis* as the southern *embouchure* of the Danube. And for the *Istropolis* branch, Sallust tells us, (lib. v.) that *Istrus* stood at the *south* side of the mouth of the Danube. The anonymous Periplus also informs us, that *Istropolis* was named from the river.

The traces through the country are the most clear and satisfactory. An ancient channel of great breadth and capacity extends from Chernavoda (or Zernavoda) on the Danube, about 6 miles below *Axiopolis* (still called Axiopoli, as well as Rassovat), to the neighbourhood of Baba, or *Tomis*, a distance of about 26 British miles, in a direct line. It contains generally a chain of small lakes, often connected by channels; and probably the floods of the Danube, with which the lakes communicate, keep them supplied from time to time.

The great road from Constantinople to Ismael passes the central part of this hollow, at a town named Karasu, from the name of the waters in its bed. It means *Blackwater;* and *Zernavoda* has the same meaning in the Russian language [1].

[1] There are the remains of a fortified line or wall, with gates, (one of which is said to be entire), extending along the south, or Constantinopolitan side of this channel: probably a work of the lower empire, to keep out the Goths. The common people

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There are also traces, generally from the Danube to the sea, in the line between Zernavoda and Kargolik, the unquestionable general site of *Istropolis*. There is also a deep recess in the land there, as at Baba, (Ptolemy marks it very pointedly.) But the Russian engineers have not yet given the detail of this line, as they have of the other. Still, however, we are in possession of a sufficient number of facts to decide on the general character of the ground.

A town named *Vister*, and also *Istere*, occurs in the route from Karasu to Ismael, at 20 miles from the former; and, like Karasu, about midway between the Danube and the sea. Here another great channel is crossed, and the old maps, in their coarse manner, describe lakes and other waters in the neighbourhood.

We regard this channel at Istere as a part of the course of the northern branch of the Danube, that fell in at *Istropolis;* and Istere or Vister as the crossing place: and that its name was derived from the river, as being the passage over it; as Utrecht is the *Trajectum ad Rhenum*, where nothing more than the hollow bed of the Rhine remains.

The triangular tract between the two channels, which, perhaps, may be regarded as an ancient *delta* of the Danube, is described to have many channels, hollows, and pools of water in it; proving the presence of large bodies of water in former times.

Such hollows fill up very slowly; and will, perhaps

refer it to Trajan. They forget that Trajan extended the empire beyond the Danube.

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for ever, mark to the eye of experience and enquiry the ancient site [1].

Ptolemy remarks, that at *Axiopolis* the *Danube* loses its name, and takes that of *Ister*, from thence downward to the sea. It being difficult to account for a river's changing its name at a particular point of its course, unless it had undergone a change of character or of circumstances, such as dividing its stream, or receiving a large adjunct stream into its bed; one can only conclude that, at the original separation at *Axiopolis*, the *Istropolis*, or northern branch, took the name of *Ister;* as the southern one, by *Tomis*, had that of *Danube;* as we learn from OVID himself [2]. And finally, that when the *Istropolis* branch deserted its old bed, and sought a new one, northward, that it carried its name with it.

From what is known to have happened to certain other rivers, one may readily trace out the circum-

[1] M. D'Anville had a conviction in his mind that a branch of the Danube ran into the sea at *Istropolis*, but failed to trace its outlet from the proper place. Some old maps describe the Karasu Water (or *Tomis* branch) as a large lake, and confound the name with Kirsova, a town on the Danube, 30 miles, or more, below the outlet of the Karasu. M. D'Anville, misled by these documents, concluded that the Karasu was the *Halmyris* lake, and had its issue from the Danube, at Kirsova (olim *Carsum*); and from the supposed *Halmyris* he describes a channel leading to *Istropolis*. It was scarcely possible that he should have disregarded the notices respecting an outlet at *Istropolis;* but he wanted, what every one else wanted down to the present times, better materials.

[2] When a river divides its waters, it becomes necessary to have a name for each of the streams. One of them commonly preserves the original name; but this is not always the case.

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stances of the above change. That the Danube, by creating impediments to its own course, by raising the level of the soil in that line, sought a lower level elsewhere; and which it found to the north, towards the course of the Jalomnitza (or *Naparis)*; into whose bed it threw itself, at the distance of 20 or 30 miles from Axiopoli: and with that made its way into the bed of the collective waters of Moldavia; that is, the Siret and Pruth *(Ararus* and *Porata)*, and other lesser streams, which might originally have discharged themselves, separately from the Danube, through one or more of the channels which are now common to both, between Galatz and the sea [1].

It is not to be supposed that the change was sudden and total, but slow and gradual; at first, only such a portion of the waters as the contracted state of the old channel would not readily admit, ran out. But as the new one would be gradually enlarged by corrosion, so the old one would be filling up from the diminished force of its stream, which rendered it less and less able to remove the obstructions, until the whole would be drawn into the new channel. In tropical climates such changes are sometimes the work of a single season: but it is probable that it required many ages to accomplish that of the Danube [2]. One might conclude, from the words of

[1] The fact of rivers raising the soil through which they run, in the lower part of their courses more particularly, is too well established to need any proof.

[2] The great change must have taken place before the time of Herodotus, although some water might still run in the old

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Sallust, that the *Istropolis* branch had not totally failed long before his time; and it is also probable, that in latter times the waters only found their way into either of them during the floods of the Danube [1].

In respect to the name SCYTHIA being applied to the eastern part of MOESIA, it doubtless was because the Scythians had crossed the Danube, and made settlements in the country. They even possessed tracts south of Mount *Hæmus*, and around the gulf of *Apollonia* (Foros) [2]. Both of the Periplus speak of the Grecian cities on this coast, as being situated in *Scythia*. Pliny says, (lib. iv. c. 11.) that the *Scythian Aroteres* possessed the tract above *Dionysiopolis* (between Varna and Kavarna). So that the name of the Roman province of *Scythia*, in *Moesia*, was one which they found already applied. It was not the *country* of SCYTHIA, properly so called, but a conquered province, which received the name of their nation.

channels. For he says, (Melpom. 49.) "The Danube passes through the centre of Europe; and afterwards, *by an oblique course*, enters Scythia."

[1] The study of this subject will be pursued with the most effect in tropical regions, and amongst capital rivers; where the changes are rapid enough to enable the same individual observer to mark and comprehend the whole process. The author has witnessed changes of the above kind, though not of any stream so large as the Danube. But he has explored a deserted bed of the river Burrampooter (equal at least to the Ganges), during a course of 60 miles; and in some places at 50 miles wide of its present course: and still preserving the name of Burrampooter.

[2] This gulf formed the general boundary between the *Byzantines* and the *Scythians*.

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This Roman province of Scythia included *Tomis, Callatis,* and *Dionysiopolis,* along the sea-coast; and *Durostoros,* or Silistria, on the Danube.

Ovid, then, was fully justified in saying that *Tomis* was in *Scythia,* and on the river Danube.

All the tract between Bazarjik and the Karasu channel, and from the sea-coast far over towards the Danube is low, flat, sandy, and void of trees, and good fresh water; totally differing from the surrounding country. It was possibly the bed of the sea before the Euxine lowered its level, by the rupture of the *Bosphorus.* This tract formed the southern part of the province of Scythia; and Tomis being situated within it, the dreariness of the country might well have excited unpleasant feelings in poor Ovid.

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CHAPTER VIII.

From Tomis to the Bosphorus of Thrace, or Canal of Constantinople.

THIS interval is given

By Arrian, at		2920 stades
By the anonymous Periplus . . .		2800 [1]
By Strabo		3080
By Pliny, from *Callatis* . .	3016	
Add to Tomis . .	300	
		3316
Mean .		3029

The distance on the construction is $251\frac{1}{4}$ G. miles, giving, on Arrian's number, about 700 stades to a degree [2].

[1] There will be found to be a deficiency of 100 stades between *Odessus* and Mount *Hæmus*.

[2] Ancient Names.	Stades in Perip.	Modern Names.	Geog. Miles.	Stades at 700.
Tomis to *Callantra*, or *Callatis*	300	Tomis-waer to Kallat . .	25	290
Carum, or *Carorum*	180	Ghelegra, or Kavarna(promontory) .	$29\frac{1}{2}$	345
Tetrisias (promontory) . .	120			
Carried forward	600		$54\frac{1}{2}$	635

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The space is divided into four portions :

1. From *Tomis* to *Odessus* (Baba to Varna).
2. *Odessus* to *Anchialus* (Varna to Akkiolo).
3. *Anchialus* to *Chersonesus* (Akkiolo to Sizeboli). It includes the gulf of *Apollonia*, or Foros, only.
4. *Chersonesus* to the *Bosphorus*.

Ancient Names.	Stades in Perip.	Modern Names.	Geog. Miles.	Stades of 700.	
Brought forward	600		$54\frac{1}{2}$	635	
Bizus . . .	60	Kavarna . .	$6\frac{1}{2}$		
Dionysiopolis .	80	Baltchik . .	$5\frac{1}{2}$	310	
Odessus . . .	200	Varna . . .	$14\frac{1}{2}$		945
	940		81		
Odessus to the promontory of Mount *Hæmus*	360	Varna to Emineh-Boroun	32	372	
Mesembria . .	90	Miserva . .	$3\frac{1}{4}$	38	
Anchialus . .	70	Akkiolo . .	$6\frac{3}{4}$	80	
	520		42		490
Anchialus to *Apollonia* . .	180	Akkiolo to Foros	15	180	
Chersonesus . .	60	Sizeboli . .	$9\frac{1}{2}$	110	
	240		$24\frac{1}{2}$		290
Chersonesus to *Aulæi-tichos* .	250	Sizeboli to Atheboli .	$25\frac{3}{4}$	300	
Thynias, or *Thyneada* . . .	120	Cape Aineada	$18\frac{1}{2}$	216	
Salmydessus .	200	Midya . .	$15\frac{1}{2}$	180	
Phrygia . . .	330	Filea and Cape Kaliundik .	$14\frac{1}{2}$	170	
Cyanæan Islands	320	Canal of Constantinople .	$29\frac{1}{2}$	343	
	1220		$103\frac{3}{4}$		1209
Grand total	2920		$251\frac{1}{4}$		2934

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SECTION I.

From Tomis to Odessus.

The first place is *Callantra,* 300 stades [1]. This place is named by others *Callatis;* and is, without question, the Kallat of the present day, 25 G. miles from Baba. The 300 stades agree within a fraction of a mile.

The Antonine Itinerary has 30 MP.; and the Tables 34; that is, 12 to *Stratonis,* 22 to *Callatis.* These land routes may be taken respectively at $21\frac{1}{2}$ and $24\frac{1}{4}$ G. miles. The mean of all $23\frac{3}{4}$.

Mankala and Sutkuli lie between: the first is a modern place, the other answers to *Stratonis.*

The next place is *Carum,* or *Carorum,* 180 stades; and the succeeding one, 120 to *Tetrisias:* total 300.

Tetrisias, or *Tetrissa,* is explained in the anonymous Periplus to be a promontory; and therefore answers to that of Ghelegra, called often Kavarna, from a town within it. This is a very prominent feature of the coast, forming, with the point of Varna, a deep bay or recess, and is too marked to be mistaken. The distance, $29\frac{1}{2}$ G. miles, gives about 44 stades more than Arrian; but reckoned from Tomis, $53\frac{3}{4}$ G. miles, the excess is only 27.

To *Tetrisias,* in Arrian, succeeds *Bizus,* at 60 stades; *Dionysiopolis* (or *Cruni),* 80; and then *Odessus,* at 200; coasting the bay or recess just

[1] Strabo has 280.

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mentioned: the total is 340. The construction (from the Russian maps) has 26·5 G. miles, equal to about 310. So that the excess in the former is about equal to the deficiency here.

The Antonine Itinerary has the following particulars from *Callatis:*

Timojittia . . .	18 MP.
Dionysiopolis . .	24
Odessus . . .	24
Total	66

As the direct distance to Varna (which is doubtless the same with *Odessus)* is only 38 G. miles, whilst the 66 MP. give 47; the route most probably led along the coast, avoiding only the sharp projection of Cape Ghelegra.

The Tables have 80 MP., but the distances are no doubt corrupted, as it gives 32 between *Dionysiopolis* and *Odessus.*

On the whole, no part of the Periplus agrees better with the actual geography than this portion of it.

SECTION II.

Odessus to Anchialus; that is, Varna to Akkiolo.

Arrian gives 520 stadia between them; the construction has 42 G. miles, equal to 490; the Tables

[1] The Anon. Periplus has 260 only.

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have 55 MP., or 39¼ G. miles. The Antonine Itinerary goes circuitously by *Marcianopolis*.

The particulars in the Periplus are: From *Odessus* to the promontory of Mount *Hæmus*, 360 stadia; and it being 32 G. miles on the construction, the Periplus falls short only 1 mile[1]. This answers to Eminy Boroun, or the promontory of Eminy, or *Hæmus*. There is said to be a port there; but whether to the N. or S. of the promontory is not known.

From thence to *Mesembria* (now Miserva) 90 stades are given; but the distance is only 3¼ G. miles, or 38 stades: and lastly to *Anchialus* (Akkiolo) 70; which being 6¾ miles, is nearer 80. But taking the two together, here is an excess of more than 40 stades from Varna. (See the Table at p. 382.)

The land route in the Tables, from *Odessus* to *Anchialus*, has these particulars:

	MP.
Erite	11
A Temple	16
Mesembria . . .	16
Anchialus	12
Total	55 MP., equal to 39¼ G. miles;

which agrees well with the space on the construction, and shews that Arrian's distance is too great, as in the former result.

The road from *Odessus* to *Anchialus*, in the Antonine Itinerary, goes circuitously, as follows:

[1] The anonymous Periplus has 260 only.

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Odessus to *Marcianopolis*	18 MP.
Soatris . .	26
Anchialus .	24
Total	68

Now *Marcianopolis* lies in the direct road from *Anchialus* to *Durostorus* (or Silistria) on the Danube, and nearly the whole length of the 18 miles *wide* of *Odessus*, or Varna; the cause of which will be attempted to be explained presently.

There is a second road, in the same Tables, from *Anchialus* towards *Marcianopolis*, but imperfect. It marks the river *Panysus* (Kamptché) at 12 MP. from Marcianopolis: and then goes to a nameless station, 12 more, which may well be taken for *Soatris* (of the former route), the distance being so nearly alike. The rest is omitted.

There appears to have been a very considerable change effected in the bay or gulf of Varna; as at the gulf of Kabes, or Lesser *Syrtis*, on the African coast, near Tripoly; by the shutting up of its mouth by a sand-bank. The reader will find a particular account of this change (which is on a much more extensive scale than that at Varna) in the Geographical System of Herodotus, examined, p. 662 *et seq.* (8vo. ed. Vol. II. p. 331.) In effect, it is concluded, from appearances, that the narrow tract of sandy soil, which at present separates the fresh-water lake of Varna from the bay of the same name, did not anciently exist; and that the present lake was a continuation of the gulf. Several small streams are received into the lake,

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whose surplus waters are discharged into the sea by several small channels, through the sandy plain. The lake extends 10 or 12 miles into the interior, in the same line of direction with the Bay of Varna; from whence it may be supposed to have been detached.

Marcianopolis, deriving its name from the sister of Trajan, and retaining nearly its ancient name, in Marcenopoli, is situated near the upper part of this lake, at 14 miles from the Bay of Varna. It was hastily fortified by the Turks, in one of the late wars, and then acquired the name of *Tope-kellah*, or the *Cannon-fortress*.

The position of the lake, and the probable state of things in ancient times, may account for the great inflexion of the road between Varna and Akkiolo; since the lake, whilst it formed a part of the gulf without, must have occasioned a great detour, when it was not convenient or practicable to cross the mouth of it.

SECTION III.

From Anchialus to Chersonesus (Akkiolo to Sizeboli.)

This head includes merely the interior part of the gulf of *Apollonia*, or Foros; which, under its most extended dimensions, from the promontory of *Hæmus* to the cape of Baglar Alten Bornu, is scarcely 40 G.

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miles in circuit: and the part to be here considered is no more than $24\frac{1}{2}$ [1].

The reason for making it a separate head for examination is, that there is a seeming difficulty respecting the positions of *Apollonia* and *Chersonesus*, which stand on its shore: and therefore the advantage of having *Anchialus* as a point of departure was not to be lost; considering its position as so perfectly established, and as being so near to *Apollonia*.

Arrian allows 180 stades between *Anchialus* and *Apollonia;* 60 thence to *Chersonesus;* the anonymous Periplus has the same numbers: total, 240 stades. But taking Sizeboli for *Chersonesus*, (as we can scarcely do otherwise,) the distance on the construction is $24\frac{1}{2}$ G. miles, or about 290 stades. The difference, equal to about 4 miles, will be found to

[1] The gulf of Foros is $15\frac{1}{2}$ G. miles in breadth at the entrance, 9 between Akkiolo and Sizeboli, and $16\frac{1}{2}$ in its greatest length from E. to W. It has some good anchoring places, even for the ships of the present times; and for small vessels, well sheltered ones: therefore the ancients might well have reckoned the two bays at Foros capacious ports. (Our ideas are collected from a very particular, and apparently accurate, plan of this gulf, obligingly communicated by Sir James Bland Burges; and which has the name of Spencer Smith to it.)

It appears evident, by the plan, that the land at the head of this gulf, between the skirts of Mount *Hæmus* on the N., and the *Thracian* hills on the S., a breadth of 16 miles, or more, has been formed by depositions of the waters from those mountains. The great north road passes at 12 or 13 miles above the head of the gulf; and the space between is occupied chiefly by *Lagunes* and *half formed* land.

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arise from an error in the distance between Apollonia and Chersonesus.

The Theodosian Tables allow 18 MP. between *Anchialus* and *Apollonia;* these, of course, are less than the 180 stadia of Arrian, which are equal to about 15 G. miles. But it is difficult to appreciate distances by water, round a gulf so deeply indented as that of Foros. It may be said, generally, that Foros agrees to the assigned position of *Apollonia;* being about 15 miles from Akkiolo, *round* the bay, or gulf.

Referring to the before-mentioned plan of the gulf of Foros, there appears no difficulty in assigning the positions of both places.

The anonymous Periplus says, that *Apollonia* "had *two capacious* ports." These can only be referred to the two bays, separated by the promontory of Foros, on which stand the ruins of the tower of Foros, said to be very ancient. On the other, or eastern side of the same bay, is Chingany, a town, with a river, about 2 miles from Foros, and generally taken for the site of *Apollonia.* But the plan accords so well with the description of the two ports, that it ought to determine the question in favour of Foros, independent of distances given in this way.

There is no other part of the gulf in which there are two capacious ports common to one position [1].

[1] Perhaps it may be thought extraordinary that any one should suppose that the name *Foros* should have any connection with that of *Apollonia*, or *Apollo;* especially as the *Bithynian* Apollonia is still called *Abulionte.* But different tribes corrupt names in different ways. Hajy Kalifa, speaking of a place where

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The anonymous Periplus says that *Apollonia* was afterwards called *Sozopolis.*

Neither Arrian or Ptolemy mention *Sozopolis.* The present Sizeboli answers exactly by its description to what we might expect in *Chersonesus;* being a peninsula joined to the main by a very long narrow isthmus, and just large enough to hold a town. In point of distance, it is too far from either Chingany or Foros to answer to the Periplus, being near 90 from the former, and about 110 from the latter, instead of 60. But the character of the place does away all other difficulties.

Sizeboli is so like *Sozopolis* in name, that one cannot but suspect that they both belong to the same place; and that *Chersonesus,* and NOT *Apollonia,* changed its name. It is much more probable that a place, whose name was a mere *appellative,* should change its name, than a noted city, named from the god Apollo!

This gulf formed the boundary between the *Scythians* and *Byzantines. Apollonia* appears to have been the last Grecian city in the *Scythian* territory: so that it is probable that the river of Chingany was the boundary.

Apollo had been worshipped, writes the name *Folos.* The *l* and *r* are perpetually interchanged; and it is possible that by Foros, Folos or Apollo are intended. The name is applied both to the presumed site of *Apollonia* and to the gulf itself.

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SECTION IV.

Chersonesus, or Sizeboli, to the Bosphorus of Thrace, or Canal of Constantinople.

From *Chersonesus* to the Bosphorus (or *Cyanæan* Islands) the number of stades, in Arrian, is 1220; and in the anonymous Periplus, 1200. The distance on the Russian chart of the Black Sea is $103\frac{3}{4}$, whence results a rate of $705\frac{1}{2}$ to a degree, on this particular interval: but the rate on the whole line from *Tomis*, of near 3000 stadia (700 to a degree) is applied throughout.

The first stage from *Chersonesus* is *Aulæi-tichos*, given at 250 stades [1]. Atheboli, or Aktepol, occurs at $25\frac{3}{4}$ G. miles, equal to 300 stadia, from Sizeboli; so that it may possibly be the place intended [2]. Next is *Thynias*, or *Thyniada*, 120 stadia. There is a cape of the name of Aineada, at $18\frac{1}{2}$ G. miles to the SE. of the former place, or 216 stadia. It is also remarked by Ptolemy, under the name of *Thynæ*; and is described by him as exceedingly prominent; as in fact it is, in the Russian chart, which is unquestionably the best delineation of this coast extant.

A town named Aineada occurs at some distance beyond the Cape, the land falling back into a deep recess; whence the great prominency of the Cape before mentioned.

[1] See the Table of places and distances, p. 382.

[2] Ptolemy has a place of the name of *Tonzi*, at the Cape, answering to Baglar Alten Boroun.

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It may be doubtful which of the two was intended by the Periplus: and the more so, as the distance is corrupted. Probably the distance should have been 220 instead of 120, which suits the promontory, and will also be found to agree with the account made up to *Salmydessus*.

Next is *Salmydessus*, 200 stades: Midya, which answers perfectly to it, is 15½ from the Cape of Aineada, or 180 stadia. This place has been noted, in all ages, for being situated on a dangerous and inhospitable coast, where the frequency of shipwrecks has rendered its inhabitants avaricious and savage, from the constant practice of plundering wrecks [1]. This was the term northward of Xenophon's discreditable expedition with *Seuthes*. Midya is reckoned 18 hours' travelling from Constantinople.

Thence to *Phrygia* is given at 330 stadia. This should rather be *Philea*, as the anonymous Periplus and Ptolemy write it. The former allows 310 instead of 330.

Filia appears in a chart of Messrs. Laurie and Whittle, at about 14 G. miles to the SE. of Midya.

[1] The frequent shipwrecks that happen all along this coast are probably the effect of the boisterous northerly winds and currents, which embay vessels in their way to the Canal of Constantinople, it being necessary to keep well in with the land to prevent over-shooting the mouth of the Canal. The Bay of Dercous, behind Cape Karaboroun, deceives many, from its having somewhat of the appearance of the entrance of the Canal. The author has been informed that there are two lofty hills on the Asiatic side, which furnish a line of direction on which ships from a distant offing may securely run in, for the mouth of the Canal.

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Ptolemy has the promontory of Philea in the same relative position.

The distance in the two Periplus is, therefore, probably erroneous, to a great degree; for they also allow 320 from *Phrygia*, or *Philea*, to the *Cyanæan* islands, at the *Bosphorus;* which are in reality about 340 from Philea: and the whole distance between Midya and the Canal of Constantinople is no more than from 510 to 520 stades. Consequently, no more than 170 to 180 can remain, for the space between *Salmydessus* and *Philea*, instead of 300 and upwards.

Cape Kaliundits agrees exactly to the promontory of *Philea*, being 14½ G. miles SE. from Midya (11 short of Karaboroun.)

The *Philea* of M. D'Anville is placed at Karaboroun, 25½ G. miles from Midya; which, indeed, agrees with the distance given from *Salmydessus*, but totally disagrees with that from the *Bosphorus:* not to mention the fact of Philea being found in a modern chart, at the distance given by Arrian from the *Bosphorus*.

Since, then, Arrian allows no less than 650 stades between *Salmydessus* and the *Bosphorus*, whilst the construction has only 44 G. miles, or 513 stades, here is an excess of 137. It will be recollected, that between *Chersonesus* and *Salmydessus* there was a deficiency of 125 stades; so that the two accounts balance one another within 12 stades, or about a mile. So that, for the 330 from *Salmydessus* to *Philea* only 170 or 180 can be reckoned; whilst his number from *Philea* to the *Bosphorus*, 320, ap-

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proaches the truth. And this appears to be the true state of the question.

As Arrian commences his account of the coast between the *Bosphorus* and Trebizond with the distance from *Byzantium* to the Temple of *Jupiter Urius*, and from thence to *Rhebas*, on the *right* hand; so he terminates from the left by the distance between the *Cyanæan* islands and the same Temple. That distance he gives at 40 stadia; and it appears to be about 4 G. miles, or between 40 and 50 stadia.

But as *Rhebas* (Rewa) lay very obliquely from the Temple, it happens that a space of about 3 G. miles, between *Rhebas* and the *Cyanæan* islands, has not been reckoned in the circuit of the Euxine, since our point of *departure* was at *Rhebas*.

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CHAPTER IX.

MISCELLANEOUS OBSERVATIONS.

1. On the supposed original junction of the Euxine with the Caspian Sea.
2. On the prevailing currents in the Euxine Sea.
3. On the currents in the canal and port of Constantinople.

SECTION I.

On the supposed junction of the two Seas.

It has been of late a pretty general opinion, that the Black Sea and the Caspian have, at some former period, formed portions of one and the same expanse of water. This opinion is generally grounded on the appearance of the Desert of Astrakan: particularly in the line between the sea of Azof, and the northern part of the Caspian; it having very much the nature and appearance of the deserted bed of a

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sea. These appearances are, indeed, extended to a large tract, around the north and north-east part of the Caspian ; and to certain tracts along the north and north-west of the Black Sea and Sea of Azof. Some persons have believed that they could trace the ancient shore of the Euxine, between the Danube and Borysthenes rivers.

If this state of things really existed (and which appears, in part, probable), it must be supposed to have been previous to the rupture of the canal of Constantinople. When this took place, the level of the Euxine would necessarily subside : some of the shallower parts would be uncovered : and the Desert of Astrakan, a part of which might fall under that description, would become the mound of separation between the two distinct waters, or lakes, into which the former great expanse would now be divided ; the eastern part being the Caspian Sea : and the other, the Euxine, or Black Sea.

Whilst these constituted one expanse, and which had no outlet, the whole mass of river water, received into the common receptacle, was probably evaporated; because it would naturally expand itself over the low ground, until it had acquired a surface adequate to the purpose. But when the separation had taken place, and two distinct receptacles were formed, it would happen that the Black Sea received *more* water than it could evaporate, and the Caspian *less ;* the greatest influx of river water being on the European side of the Black Sea. It would then happen that the Black Sea, having an outlet, would discharge its surplus waters ; whilst the Caspian,

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having too great a surface for *its* supplies, would *shrink* until it was reduced to such an extent only, as would balance the influx of river water; and this may perhaps account for the low level of the Caspian Sea, in comparison with that of the Euxine.

By the dimensions of the Canal of Constantinople in breadth and depth, and the velocity of its current, it may be calculated to discharge a far greater quantity than is received by the Danube.

In contemplating a subject of this kind, one is apt to indulge the fancy, when liberty is thus given it to range. If the space requisite to evaporate the surplus waters alone be taken at $\frac{1}{4}$, or less, of the present extent of the Black Sea; this space is amply sufficient to cover that part of the Desert of Astrakan, and other tracts, that lie in the line beween Azof, on the borders of the *Palus Mœotis,* and the mouth of the Kuma River, at the Caspian Sea. But if we extend our ideas to the *whole Desert of Astrakan,* &c. &c. one must look to other causes than the rupture of the *Bosphorus,* for its being no longer covered with water; for this desert has a surface scarcely less than that of the whole Euxine itself[1].

[1] Arrian remarks that the Euxine is much *fresher* than other seas; and that the people who live on its shores lead out their cattle to drink of it, which they willingly do, and thrive on it.

There can be no question that a sea, which receives such vast supplies of river water, and is continually discharging *a part* of its salt water, ought to be fresher than other seas; at least, on the surface.

The author has seen at the Island of Sooloo, near the Philippines, horses drink of the sea-water of a shallow bay, as they were

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SECTION II.

On the prevailing Currents in the Euxine Sea.

Independent of the prevalent winds, that either influence or produce currents in this, and occasionally in all other seas, more particularly narrow ones, there are causes in the Euxine that produce, in certain parts of it, constant and regular currents; although of different degrees of strength, at different times, as the permanent causes may be blended with accidental ones.

The permanent cause alluded to, is the influx of river water into a particular quarter of this sea, in a proportion vastly greater than in the others; so that the waters received into the former must necessarily preponderate. For the Danube, Borysthenes, Bog, Dneister, Don, and Kuban, all fall into the north side of the Euxine, within a space of little more than $\frac{1}{4}$ of its whole extent [1]. And these, in quantity of water, so far overbalance the rivers that fall in throughout the remaining part, notwithstanding their numbers, that there must necessarily be a perpetual descent from the north and north-west to the south; not to mention that the place of *outlet*

crossing it; and into which only a very insignificant rivulet discharged itself.

[1] In effect, the Euxine may be said to receive the drainage of all that part of Europe, lying to the SE. of a line drawn from Switzerland to Moscow.

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being also in the south, increases the previous disproportion of level. From these causes it must result, that there is a constant flow of water from the north towards the south; that is, from the mouths of the Borysthenes and Danube towards the Canal of Constantinople.

On a coast where a current is either *constant*, or *very prevalent*, in one direction, and where rivers fall in, infallible tokens of the line of direction of the sea current are found in the *position* of the alluvions created by the rivers, at, or near the places of their *embouchures*. For after the river current is completely mixed with the sea current, the matter of alluvion suspended in it will be carried away by the latter; and partly deposited in the form of a shoal or bank contiguous to the shore, and *extending downwards*, in the direction of the sea current; and partly carried to a greater distance [1].

One cannot, therefore, on a view of these tokens, be at a loss to know that the course of the sea current, from the mouth of the Borysthenes, is towards that of the Danube; because not only the mouth of the former points that way, but there is found to extend from it, towards Odessa, a long tract of mud banks and shallow water. The waters of the Dneister, and other streams of Bessarabia, augment this

[1] Perhaps this is no where more strikingly exemplified than in the Sea of Azof; of which the Russians have made a very particular chart. Along the northern side of this sea, the current kept up by the waters of the Don, (and which waters appear to be saturated with the matter of alluvion), has formed several projections of greater extent than usually appear.

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current, which, no doubt, reaches the Danube, whose mouths have all of them, more or less, an *inclination southward.* (See page 368).

There are no charts that shew the western coast of the Black Sea in sufficient detail to enable us to judge *from thence,* what the course of the water is between the Danube and the canal; one part only excepted—the gulf of Foros—of which, the plan so often quoted, furnishes some very satisfactory information. For it may be observed, that the form and nature of the shore, at Raverda, Miserva, and Akkiolo, indicate a *southerly* current; as that by Burgos, and the interior part of the gulf in general, does a *counter*-current, or eddy, to the west and north; and which is equally in proof of the presence of a sea current to the south, as the appearances at Miserva, &c.

Public opinion is decidedly in favour of a current the whole way, from the north of the Euxine to the Canal of Constantinople; but many suppose it to originate entirely in the Sea of Azof. But it can hardly be supposed, that the outlet of that sea, formed of the surplus waters of the Don, and some very small rivers, after their diminution by evaporation, when spread over so considerable an expanse of water; and although afterwards increased by the current from the Kuban river; can have force enough to reach the Canal of Constantinople, 400 G. miles distant. It is more probable, that the current from the Sea of Azof, joined by that of the Kuban, &c. proceeds along the southern coast of the Krimea.

If the opinion be founded, that there is a current

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to the south, along the western coast, (as experience and appearances seem to warrant), the narrow canal of the *Bosphorus* cannot receive any great portion of such a stream; which must, therefore, necessarily pass on to the eastward.

The alluvions of the Kizil-Irmak, the Casalmak, and the Tarmeh rivers, all of which fall into the south side of the Euxine within a space of 50 miles, are carried to the *east*, and form extensive flats in the sea, adjacent to the plains, which must have been created in the same manner; and which were celebrated by the ancients, as the abode of the Amazons. M. de Beauchamp is the authority for the course of these alluvions; so that here we clearly detect an *easterly* current.

If the attention be turned to the opposite, or Krimean, side, as satisfactory proofs will be found of a *westerly* current; as if the water circulated along the coast, round the eastern bason of the Euxine.

Nothing is more evident to the senses, than that the *alluvial border* of the *Liman*, or lake of Taman, *points to the west*, and is on the increase. The mode in which the lake appears to have been formed was by the joint operation of the stream of the Kuban river, bringing down alluvion from *within;* and a current from the coast of the Abkas, (on the SE.) from *without*. The border of the lake must have been partly the work of a sea current; for the river could not have deposited its alluvion in a long narrow slip, at the distance of more than 12 British miles from its *embouchure*. An agency from without

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was required to regulate the disposal of the matter brought out by the stream[1].

If it be admitted that the motion of the sea current is to the westward, at Taman, it goes far towards proving that it also runs to the westward along the south coast of the Krimea. For Taman is only a few leagues to the eastward of the Strait of Jenikale *(Cimmerian Bosphorus)*, through which there is a considerable discharge from the Sea of Azof, into the Euxine, in a southerly direction. The westerly current then, from Taman, must join this southerly one from the Sea of Azof; and if they were nearly balanced in strength, would produce a south-westerly current; or, at any rate, it must be a current that has *westing* in it, and not *easting*. But it is probable, that its compound direction would be so nearly that of the south coast of the Krimea, that it takes its course along it.

[1] The lake Menzala in Ægypt furnishes, perhaps, one of the most striking instances of this effect of a sea current, in regulating the deposit of the river alluvions. The reader is, accordingly, referred to it, in General Andreossi's description and plan of that lake, in the *Decades Egyptiennes*, Vol. I. It will there be seen, that the easterly sea current along the coast of Ægypt has formed a tongue, or slip of land, of 40 miles in length, and only 200 to 500 yards in breadth in most places. It is divided into three parts, by outlets of branches of the Nile, answering to the *Tanitic*, *Mendesian*, and *Phatmetic;* but these are mere canals. They illustrate, however, very forcibly, the above system, respecting the formation and position of alluvial banks in the sea; and the information which they afford respecting the *direction* of the sea currents; especially as the direction *there* is *ascertained* to be eastward.

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As then, a westerly current is found at Taman, and an easterly one on the opposite shore, at the Kizil-Irmak, one would be led to suppose that the same stream existed intermediately; and that the numerous streams recorded by Arrian, in this quarter, tend to keep up the current, by their supplies of water, poured in from a higher level [1].

How far the current that passes the Canal of Constantinople, to the eastward, goes, we have no knowledge; but there must have been some pre-existent cause to determine the currents of the Kizil-Irmak, &c. to the eastward.

This sea is known to be subject to violent N. and NW. winds; one effect of which is, the increased rapidity of the currents of the Canal of Constantinople, and that of the Dardanelles. This may be supposed to happen from the great accumulation of water in the great recess between Mount *Hæmus* and Cape Baba. A part of the water, so accumulated, must necessarily run off to the eastward; forming a current towards Karempe and Sinope; since the canal is too narrow to draw off any considerable proportion of the accumulation. This is a matter too plain to admit of doubt; but whether the impression continues long enough, or is so frequently repeated as to keep up the current constantly, is not known; but it may well happen that this accidental cause, joined to the former permanent one, may keep it up.

[1] The numerous projections of the coast between the *Phasis* and Anapa are not alluvial, but are the terminations of the *lateral* ridges of Mount Caucasus.

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The prevalent westerly winds in the Atlantic keep up a constant circulation round the Bay of Biscay; as well as a motion of the sea up the British Channel, through the Strait of Dover, and up the North Sea, to the coast of Sweden.

A current of much the same kind prevails in the southern part of the Caspian Sea. Also, in the eastern bason of the Mediterranean, where the mud of the Nile is said to be lodged in the gulf of Scanderoone.

SECTION III.

Currents in the Canal and Port of Constantinople.

This subject has been treated of by so many persons, ancient as well as modern, that it is introduced here, not as a new subject, but with a view to explain it more fully, by means of an apparently accurate plan of the strait and port of Constantinople, made by our illustrious countryman, Sir Sidney Smith.

Polybius (lib. iv. c. 5.) describes the current of the Bosphorus as " first striking against the promontory of *Hermæum*, (the point on which the old European castle stands, at the narrowest part of the canal.) From thence (says he) it is deflected and forced against the opposite shore of Asia, and

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thence, in like manner, back again to that of Europe, at the *Hestiæan* promontory, (understood to be that of Ortakui,) and from thence to *Bos*, and finally from *Bos* to the point of *Byzantium*. (That is, the extreme cape of Scutari and the point of the Seraglio.) At this point (says he) a small part of the stream enters the *Horn*, or *Port*, whilst the rest, or greater part, flows away *towards Chalcedon* (Kadikui), which, however, it never reaches, but passes along the middle of the strait."

M. Tournefort[1] remarks, that, although he had passsed the Canal several times, he could not observe the *indented* motions of the stream, described by Polybius. And it is probable that Polybius is not altogether accurate in that part, or where he says that the *outer* current flows *towards Chalcedon* (Kadikui). For, doubtless, the stream is not deflected from the point of Ortakui to that of Scutari, but rather from the Castle Reach, towards the *bend* at Chelgilkui, whence it would proceed straight to the point of Scutari, and from thence, indeed, be *shot* obliquely across to the point of the Seraglio.

In a crooked passage, the stream is not bandied about from *one point* to another (as Polybius supposes), but is rather thrown from *one bay* to the *bay* on the opposite side, by the agency of the intermediate point.

By a careful attention to the annexed plan of the strait, it will appear that the main stream of the cur-

[1] Vol. ii. letter 8.

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rent of the strait, after passing by and *receiving its direction* from the shore of Scutari, is thrown obliquely across to the point of the Seraglio, which point, like that of an island in a river, divides the stream into two parts. One of these, entering the port of Constantinople, proceeds *up* it, along its southern *(left)* shore; the other, and much the largest part, enters the sea of Marmora *(Propontis)*, keeping towards the side of Constantinople, and gliding along the *outer* side of the Seraglio, as the harbour current along its *inner* side. Accordingly, a vessel from the Black Sea, that intends to enter the port, keeps to the *right* hand, or in the western *border* of the stream, and is thereby carried *into* the harbour; but if intending for the sea of Marmora, she keeps to the *left* hand, or in the eastern part of the stream, and receives also the full benefit of its aid. Nothing is more easy to be comprehended; and Polybius is right when he says that the stream never reaches Chalcedon, for it passes wide of it, by reason of the direction given it to the *right*, by the shore of Scutari. It was from this circumstance that the ridicule was thrown on the founders of *Chalcedon*, considering its object to be the intercepting of vessels from the Black Sea, because the stream of the *Bosphorus* carries them wide of it.

If we follow the *harbour* current, it will be found to proceed pretty high up, coasting the wall of the city; when it turns to the opposite side; whether thrown across by the form of the land, or opposed by the current of fresh water from the head of the

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port [1]. It thus becomes a *counter* current, and issuing out of the port, on the opposite side from which it entered, the main body of it returns gradually into the original current from whence it came, between Pera and Scutari.

A narrow vein of this *counter* current ascends *higher up* the strait, keeping close to the shore, in an opposite direction to, and *within* the main stream of the Canal, as high as the point of Ortakui (the *Hestiæan* promontory of Polybius), and of this boats in *ascending* take advantage; but here the contraction of the strait, into two-thirds of its former breadth, leaves no room any longer for a counter current, which returns, of course, into the main stream [2].

The *outer*, or sea current, has been described to brush, with its western border, the shore of the Seraglio, and to pass clear of the shore of *Chalce-*

[1] It does not appear from authority, how far up the port the stream runs. The head of the port is four miles above the entrance.

[2] In effect, a counter current will take place whenever a channel widens to any considerable degree beyond the breadth of its proper stream, so as to form a kind of lake. For the stream naturally widening, when no longer pent up by shores, or banks, on both sides, becomes too wide to enter with its entire body into the *outlet* of the lake, or contraction of the widened part below; so that as much of the stream as cannot find admission must strike against the shores, on the sides of the outlet, and thence be deflected upwards, and form *counter* currents, along the shores of the lake or expansion. And according to the *form* of the expansion, the counter current will prevail on *one* or *both* sides.

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don, on the opposite side. For that shore recedes to the eastward from *Chalcedon*, and thus widens the mouth of the Canal, where it falls into the sea of Marmora; so that the stream can only occupy about one half of the space between the shore of *Chalcedon* and that of Constantinople.

Thus the solution of the harbour current of Constantinople is very easy, when explained by a good plan of the ground. One is to regard the point of the Seraglio *(Byzantium)* as that of an island, which divides the stream of a river; only with this difference, that, in the case of an island, the two streams unite again below; but here, one of them makes the tour of the port, and returns again into the original stream. But no plan of the strait hitherto exhibited explains circumstances so satisfactorily as this of Sir Sidney Smith's. All the others describe the forts built by Baron Tott, to be at the *widest* part of the canal, near the outlet from the Black Sea; but this reduces it to the same breadth with that part, where the old castles are placed, (and where the bridge of Darius Hystaspes is supposed to have been placed,) that is, half a geographical mile. And hence the Baron's forts, which before seemed to be unmeaningly placed, now appear to be placed with judgment.

*** Perhaps the Author may be thought fanciful in what he is about to say, respecting the Gulf of Saros. He cannot, however, contemplate its form and position without a *conviction* of

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its having been, in ancient times, an outlet of the *Propontis.* In a country so subject to earthquakes, and those of the severest kinds, very great changes have doubtless taken place; such as the heaving up of mounds in one place, and the subsidence of the land in another. Ancient lakes and rivers have disappeared, and new ones have been formed in other places, &c.

The Gulf of Saros is nearly parallel to the *Hellespont*, and if a line was extended, in the direction of its length, towards the *Propontis*, it would pass through the *present* course of the *Melas* river, (after it changes its direction near Koras,) and thence into the *Propontis*, under the Tekir-dagh, or Prince's mountain, which terminates on the coast at Ganos.

The land near the shore, between that mountain and the head of the aforesaid gulf, is *low;* and one looks for the cause of the sudden change of course of the *Melas*, from SE. to SW. Is it not that the *ancient* outlet, or *another* outlet, of the *Propontis*, passed under Tekir-dagh, and thence straight into the head of the Gulf of Saros, at *Cardya*, and that the *Melas* now flows through the *remains* of that channel, although originally it might have gained the *Propontis* at Koras, (or, rather, at its site,) in the line of its present *upper* course? No great elevation of the border of the coast would have been required to produce the separation.

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